Supreme Court, U.S.
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No.

IN THE

SUPREME COURT OF THE UNITED STATES

RONALD S. DEICHMANN
and
USHER'S WATERWORKS, INC.,

Petitioners,

v.

THE BOEING COMPANY,
(doing business as Boeing Defense and Space Group)
formally known as McDonnell Douglas Corporation)

Respondent.

ON PETITION FOR WRIT OF CERTIORARI TO
THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

APPENDIX TO
PETITION FOR A WRIT OF CERTIORARI

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APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

[Filed Apr 20 2000]

ORDER

Before LOURIE, Circuit Judge, SMITH, Senior Circuit Judge, and BRYSON, Circuit Judge.

A petition for rehearing having been filed by the APPELLANT,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for rehearing be, and the same hereby is, DENIED.

The mandate has already issued.

FOR THE COURT,

/s/ Jan Horbaly
Jan Horbaly
Clerk

Dated: April 20, 2000
cc: HENRY W. CUMMINGS
DAVID A. ROODMAN

USHER'S WATERWORKS V BOEING CO, 99-1346
(DCT - 97-CV-1913)

Note: Pursuant to Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public record.

APPENDIX B

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

[Filed APR 7 2000]

99-1346

RONALD S. DEICHMANN AND
USHER'S WATERWORKS, INC.

Plaintiffs-Appellants

V.

THE BOEING COMPANY
(doing business as Boeing Defense and Space Group)
(formally known as McDonnell Douglas Corporation)

Defendant-Appellee

ORDER GRANTING LEAVE TO FILE CORRECTED PETITION FOR REHEARING OUT OF TIME

It is hereby Ordered that Appellants' Motion to File Corrected Petition for Rehearing Out of Time is hereby sustained.

Leave to File the Corrected Petition for Rehearing Out of Time is hereby granted.

So-Ordered.

For the Court,

/s/ Jan Horbaly
Jan Horbaly
Clerk

NOTE: Pursuant o Fed. Cir. R. 47.6, this order is not citable as precedent. It is a public order.

APPENDIX C

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

No. 99-1346

RONALD S. DEICHMANN AND
USHER'S WATERWORKS, INC.

Plaintiffs-Appellants

V.

THE BOEING COMPANY
(doing business as Boeing Defense and Space Group)
(formally known as McDonnell Douglas Corporation)

Defendant-Appellee

MOTION TO FILE CORRECTED
PETITION FOR REHEARING OUT OF TIME

1. The first PETITION FOR REHEARING BY PANEL was filed timely on March 27, 2000.

2. However this first PETITION was rejected by this Court because it had too many pages.

3. The Undersigned misconstrued F.R.A.P. Rule 32(A)-(7) as being applicable to Petitions for Rehearing.

4. Counsel for Respondent has been contacted by telephone, but no response has been received back from Opposing Counsel concerning their position on this Motion.

5. Leave to file the attached CORRECTED PETITION FOR REHEARING BY PANEL is respectfully requested

which excluding not counted items, does not exceed 15 pages.

Respectfully submitted,

/s/ Henry W. Cummings
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APPENDIX D

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

[Filed APR 07 2000]

99-1346

RONALD S. DEICHMANN and
USHER'S WATERWORKS, INC.,

Plaintiffs-Appellants,

v.

THE BOEING COMPANY
(doing business as Beeing Defense and Space Group)
(formerly known as McDonnell Douglas Corporation)

Defendant-Appellee.

[Filed MAR 13 2000]

JUDGMENT

ON APPEAL from the UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI

In CASE NO(S). 97-CV-1913 SNL

This CAUSE having been heard and considered, it is ORDERED and ADJUDGED:

PER CURIAM (LOURIE, *Circuit Judge*, SMITH, *Senior Circuit Judge*, and BRYSON, *Circuit Judge*):

AFFIRMED. See Fed. Cir. R. 36.

Attest:
/s/ Walden
Deputy Clerk

ENTERED BY ORDER OF THE COURT

/s/ Jan Horbaly
Jan Horbaly, Clerk

Dated Mar 13, 2000

Issued as a Mandate: April 3, 2000

NOTE: Pursuant to Fed. Cir. R. 47.6, this disposition is not citable as precedent. It is a public record. This disposition will appear in tables published periodically.

APPENDIX E

[Filed Mar 3 1999]

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Case No. 4:97CV1913-SNT.

RONALD S. DEICHMANN and
USHER'S WATERWORKS, INC.,

Plaintiffs,

V.

THE BOEING COMPANY,

Defendant.

MEMORANDUM AND ORDER

This matter is before the Court on Defendant Boeing's Motion for Summary Judgment (#81) filed February 10, 1999, as part of a Motion Package pursuant to Local Rule 4.05. This Court previously dismissed Counts II and IV of plaintiffs' Third Amended Complaint for failure to state a claim upon which relief could be granted. This motion seeks summary judgment on the remaining Counts I and III. Count I claims breach of an express contract. Count III states a federal statutory claim for correction of inventorship.

Summary Judgment Standard

Courts have repeatedly recognized that summary judgment, like dismissal, is a harsh remedy that should be granted only when the moving party has established his right to judgment with such clarity as not to give rise to controversy. *New England Mut. Life Ins. Co. v. Null*, 554 F.2d 896, 901 (8th Cir. 1977). Summary judgment motions "can be a tool of great utility in removing factually insubstantial cases from crowded dockets, freeing courts' trial time for those that really do raise genuine issues of material fact." *Mt. Pleasant Assoc. Elec. Coop., Inc.*, 838 F.2d 268, 273 (8th Cir. 1988). But there must be absolutely "no genuine issue as to a material fact and the moving party [must be] entitled to judgment as a matter of law." *Poller v. Columbia Broadcasting Sys., Inc.*, 368 U.S. 464, 467, 82 S.Ct. 486, 488 (1962).

The burden is on the moving party. *Mt. Pleasant*, 838 F.2d at 273. After the moving party discharges this burden, the nonmoving party must do more than show that there is some doubt as to the facts. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586, 106 S.Ct. 1348, 1355-56 (1986). Instead, the nonmoving party bears the burden of setting forth specific facts showing that there is sufficient evidence in its favor to allow a jury to return a verdict for it. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249, 106 S.Ct. 2505, 2510-11 (1986); *Celotex Corp. v. Catrett*, 477 U.S. 317, 324, 106 S.Ct. 2548, 2553 (1986).

In passing on a motion for summary judgment, the court must review the facts in a light most favorable to the party opposing the motion and give that party the benefit of any inferences that logically can be drawn from those facts. *Buller v. Buechler*, 706 F.2d 844, 846 (8th Cir. 1983). The court is required to resolve all

conflicts of evidence in favor of the nonmoving party. *Robert Johnson Grain Co. v. Chem. Interchange Co.*, 541 F.2d 207, 210 (8th Cir. 1976). With these principles in mind, the Court will now turn to the facts.

Undisputed Facts

As an initial matter, the Court deems admitted all the facts as outlined by defendant. Local Rule 4.01(E) states that the following:

> Every memorandum in opposition shall include a statement of material facts as to which the party contends a genuine issue exists. Those matters in dispute shall be set forth with specific references to portions of the record, where available, upon which the opposing party relies. The opposing party also shall note for all disputed facts the paragraph number from movant's listing of facts. All matters set forth in the statement of the movant shall be deemed admitted for purposes of summary judgment unless specifically controverted by the opposing party.

Plaintiffs failed to identify the paragraph numbers from defendant.s statement of The Uncontroverted Facts for any issues which they contend are in dispute. Rather, plaintiffs identify certain facts which they believe a jury could find which would result, they argue, in a verdict in their favor. However, "[a] district court is not required to speculate on which portion of the record the nonmoving party relies, nor is it obligated to wade through and search the entire record for some specific facts that might support the nonmoving party's claim." *Barge v. Anheuser-Busch, Inc.*, 87 F.3d 256, 260 (8th Cir. 1996) (quoting *White v. McDonnell Douglas Corp.*, 904 F.2d 456, 458 (8th Cir. 1990)). Once

defendant met its burden of demonstrating a lack of genuine issues of material fact, plaintiffs were required to designate specific facts creating a triable controversy. Plaintiffs' mere allegations that issues remain in dispute are insufficient to meet the requirements of Local Rule 4.01 (E), and they are deemed to have admitted all facts which were not specifically controverted. *See Ruby v. Springfield R-12 Pub. Sch. Dist.*, 76 F.3d 909, 911 n.6 (8th Cir. 1996). The Court will now outline the facts identified by defendant.

Since 1973, McDonnell Douglas Corporation (MDC)[1] has designed, manufactured and used Automated Ultrasonic Scanning Systems (AUSS) to non-destructively inspect airplane parts for structural flaws. Defense Exhibit 1. While this originally required submerging the entire part in a tank of water, the current state of the art involves emitting an ultrasonic wave through a stream of water which can be moved slowly over the surface of the part being tested. *See* Defense Exhibit 13, United States Patent 5,431,342 (the '342 patent). Prior to 1989, MDC used ordinary nozzles to produce the necessary stream of water. However, MDC found that a stream of water emitted from an ordinary nozzle quickly becomes non-laminar or diffused. Id. As a result, it was necessary to keep the testing device very close to the part being tested. *Id.* This posed difficulty in the testing of oddly-shaped parts. Id. For that reason, MDC began contemplating the use of nozzles capable of producing a more laminar or coherent flow.

Sometime prior to 1989, designers of ornamental fountains began using laminar flow nozzles in their dis-

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[1]Since the events in controversy occurred, MDC has been acquired by defendant Boeing.

plays. On July 2, 1987, California fountain designer Mark Fuller applied for a patent on a laminar flow nozzle. Defense Exhibit 8, United States Patent 4,795,-092 (the Fuller patent). That patent application described a nozzle utilizing a "cylindrical enclosure . . . having . . . a substantially sharp edge [outlet] orifice," and a "turbulence reducing means compris[ing] an open cell foam member . . . ." *Id.*[2] On January 3, 1989, that patent numbered 4,795,092 issued. *Id.*

In July, 1989, MDC's AUSS engineers learned that plaintiff Usher's Waterworks, Inc. (Usher's), a St. Louis area fountain design firm, used laminar flow nozzles for ornamental fountains. Rich Lawson of MDC contacted Usher's to determine whether or not technology in the fountain nozzles would be adaptable for ultrasonic testing systems. Prior to this contact, no one connected with Usher's had any experience with ultrasonic testing applications or the use of laminar nozzles in such applications. Deichmann Deposition p. 69 ln. 16; Keykendal Deposition pp. 127-28.

David Usher, who worked for Usher's at that time, claimed that they in fact possessed the technology to produce a long and extremely coherent stream of water. Usher Deposition p. 49 ln. 20. Plaintiffs agreed to demonstrate this technology for MDC representatives immediately. Id. at Ins. 23-24. However, prior to this demonstration, plaintiffs insisted that MDC enter a non-disclos-

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[2]In the Fuller nozzle, water was introduced in a tangential direction. The concept plaintiffs claim involves the introduction of water in a radial direction. However, the Court believes this difference does not constitute an unobvious, original design as the Fuller patent discusses the introduction of water in a radial direction as used in the prior art. The Fuller patent rejects radial injection in favor of tangential injection.

ure agreement (the Non-Disclosure Agreement) to protect plaintiffs' assertedly confidential information. Defense Exhibit 3. The agreement defined confidential information as "all information both written, oral, and as represented by viewing the external and internal mechanisms of the nozzle(s), which [Usher's] deem[s] to be confidential and proprietary, relating to the coherent flow nozzle (including, but not limited to mechanical operation, data, know-how, technical and non-technical materials, parts, and specifications). *Id.* The agreement required MDC to maintain such information in confidence and prevented MDC from engaging in any communication with any third parties regarding the information for five years. *Id.*

Representatives of both MDC and Usher's signed the Non-Disclosure Agreement, and Usher's demonstrated a laminar flow nozzle at their Fenton facility. Deichmann Deposition p. 137 ln. 16 - p. 139 ln. 18. Apparently MDC was impressed enough with plaintiffs' nozzle that it ordered production by plaintiffs of a prototype coherent flow ultrasonic nozzle. Defense Exhibit 9. In exchange for the prototype nozzle, MDC agreed to pay Usher's $18,500.00. *Id.*

In March or April, 1990, plaintiffs advised MDC that they had completed a prototype nozzle which was available for demonstration at MDC's facility. Unfortunately, MDC was unhappy with the results achieved at the testing of the prototype. Lawson Deposition p. 34 ln. 12. The prototype nozzle that plaintiffs brought to MDC for testing apparently produced a laminar stream without MDC's additional requirements applied. Lawson Deposition p. 37 lns. 8-9. However, when the transducer was installed and the device placed in motion, the results were not satisfactory. Lawson Deposition p. 35 lns.

6-7; Usher Deposition p. 137 lns. 10-19. MDC informed plaintiffs the prototype nozzle yielded unusable data. Deichmann Deposition p. 157 lns. 21-22; p. 159 24. When Usher's personnel left MDC that day, they took the prototype nozzle with them. Deichmann Deposition p. 160 ln. 9. As Usher's had never provided any drawings, blueprints or schematics, this effectively ended the working relationship between Usher's and MDC. Deichmann Deposition p. 161 lns. 2-8.

MDC's development of laminar flow nozzle technology for application in ultrasonic testing did not end with the failure of plaintiffs' prototype. In March of 1991, Rich Lawson contacted another MDC engineer, Kondala Saripalli, regarding the AUSS nozzles. A group of MDC engineers including Saripalli, David Parekh and others began working on the problem. This group ultimately designed a successful prototype nozzle which produced a laminar stream without the ultrasonic transducer interference previously experienced.

On December 3, 1992, MDC applied for a patent on this nozzle, claiming (1) the introduction of water into a side-flow entry plenum chamber which results in the radial and uniform entry of water through a porous medium along the entire length and circumference of the main nozzle plenum chamber; and (2) the use of an angled knife-edge orifice plate which causes ultrasonic waves to reflect towards the porous membrane instead of being reflected back at the ultrasonic transducer. Defense Exhibit 13. On July 11, 1995, the '342 patent was issued for this nozzle, listing Kondala Saripalli, Eugene Myers, and Richard Lawson as inventors. On September 15, 1997, plaintiffs filed this lawsuit.

Discussion

1. Count 1: Breach of Non-Disclosure Agreement

Count 1 of plaintiffs' Third Amended Complaint states a simple breach of contract claim.[3] Plaintiffs allege that Usher's and MDC entered a contract regarding the disclosure of information surrounding the nozcle in controversy here.[4] Both sides provided valuable consideration: Usher's agreed to demonstrate a laminar flow nozzle and MDC agreed not to disclose any confidential information it received. The terms of the contract were written and both prties signed the agreement. In a contract case, summary judgment is appropriate where, as here, the language of the contract is clear and unambiguous and the meaning of the portion of the contract in issue is so apparent that it may be determined from the four corners of the document. *See Betz v. Fagan*, 962 S.W.2d 432, 436 (Mo. App. 1998).

Plaintiffs allege that they kept their end of the bargain by demonstrating for MDC's agents a laminar flow nozzle at Usher's facility in Fenton, Missouri. They allege MDC breached the contract by disclosing confidential information. Specifically, plaintiffs' Third Amended

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[3]The Non-Disclosure Agreement included a clause selecting the law of Missouri as the controlling law. Since the parties do not dispute the enforceability of that choice of law clause, the Court will apply Missouri law to this contract.

[4]In their Memorandum in Support of Plaintiffs' Opposition to Defendant's Motion for Summary Judgment, plaintiffs allege various illegal actions by defendant including violation of Missouri's version of the Uniform Trade Secrets Act, Mo. Rev. Stat. §417.450 et seq., misappropriation of trade secrets, and breach of fiduciary duty. However, no allegations of these sorts are anywhere to be found in Count I of this Third Amended Complaint. Accordingly, any such arguments are completely irrelevant to this motion.

Complaint alleges that defendant disclosed to certain third-parties information regarding "the concept of introducing water in a radial direction inwardly in a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit through a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees . . . ." Plaintiffs' Third Amended Complaint, Factual Allegations ¶9; Count I ¶1.

Plaintiffs' claim of breach by defendant has no merit. The language of the contract, drafted by plaintiffs, clearly and specifically excludes from coverage any information that defendant could demonstrate was "at the time of disclosure or thereafter [became] public knowledge through no fault or omission of [MDC]." Defense Exhibit 3 ¶5(b). It is undisputed that on January 3, 1989, the United States Patent Office issued to Mark Fuller of Studio City, California, a patent for a Laminar Flow Nozzle. That nozzle utilized a "cylindrical enclosure . . . having . . . a substantially sharp edge [outlet] orifice," and a "turbulence reducing means compris[ing] an open cell foam member . . . ." Defense Exhibit 8. Plaintiffs' witnesses all admitted in their depositions that these are essentially the concepts plaintiffs alleged constituted confidential information.

Patented information falls squarely under the contractual language "public knowledge." This particular patent was public knowledge at the time of the alleged disclosure in controversy here. Therefore, the Court concludes that defendant did not breach the non-disclosure contract as alleged by plaintiffs. Defendant is therefore entitled to judgment as a matter of law.

II. Count III: Correction of Inventorship

Count III is a claim for correction of inventorship under 35 U.S.C. §256.[5] That count seeks to add Mr. Ronald S. Deichmann as co-inventor of U.S. Patent 5,431,342, and to name plaintiff Usher's Waterworks as part owner of the patent.

"The patent laws provide that whoever 'invents' patentable subject matter is entitled to a patnet thereon, 35 U.S.C. §101, and that when an 'invention' is 'made by two or more persons jointly they shall apply for [a] patent jointly.' 35 U.S.C. §116 (1994)." *Hess v. Advanced Cardiovascular Sys.*, 106 F.3d 976, 979 (Fed. Cir. 1997). "Section 256 provides that if 'through [inadvertent] error an inventor is not named in an issued patent . . . the Commissioner [of Patents] may . . . issue a certificate correcting such error" and that '[the] court . . . may order correction of the patent . . . and the Commissioner shall issue a certificate accordingly." *Id.*

Inventorship is a question of law. *Ethicon, Inc. v. United States Surgical Corp.*, 135 F.3d 1456, 1460 (Fed. Cir. 1998). Because conception is the touchstone of inventorship, each joint inventor must generally contribute to the conception of the invention. *Burroughs Wellcome Co. v. Barr Lab, Inc.*, 40 F.3d 1223, 1227-28 (Fed. Cir. 1994). "Conception is the formation in the mind of the inventor of a definite and permanent idea of

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[5] Again, their Memorandum in Support of Plaintiffs' Opposition to Defendants' Motion for Summary Judgment strays incredibly far afield from the scope of plaintiffs' complaint. The complaint alleges that plaintiff Ronald E. Deichmann should be added to the patent in issue as a co-inventor. In their Memorandum, plaintiffs argue for the addition of David Usher as well. David Usher is not even a party in this lawsuit.

the complete and operative invention, as it is hereafter to be applied in practice. *Ethicon*, 135 F.3d at 1460 (quoting *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1376 (Fed. Cir. 1986) (internal citation omitted)). An idea is sufficiently "definite and permanent" when "only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation." *Burroughs Wellcome*, 40 F.3d at 1228.

"The conceived invention must include every feature of the subject matter claimed in the patent." *Ethicon*, 135 F.3d at 1460 (citing *Sewall v. Walters*, 21 F.3d 411, 415 (Fed. Cir. 1994)). Nevertheless, for the conception of a joint invention, each of the joint inventors need not make the same type or amount of contribution to the invention. 35 U.S.C. §116. "On the other hand, one does not qualify as a joint inventor by merely assisting the actual inventor after conception of the claimed invention." *Ethicon*, 135 F.3d at 1460. One who simply provides the inventor with well-known principles or explains the state of the art without ever having a firm and definite idea of the claimed contribution as a whole does not qualify as a joint inventor. *Id.*, 135 F.3d at 1460 (citing *Hess*, 106 F.3d at 981).

The Federal Circuit recently summed up the three elements which constitute joint inventorship. A joint inventor must (1) contribute in some significant manner to the conception or reduction to practice of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art. *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998).

In order to succeed in this claim, the plaintiffs must be able to prove their contribution to the conception of the claims by clear and convincing evidence. *See Ethicon*, 135 F.3d at 1461. A claim of co-inventorship cannot rest merely on the plaintiff's testimony respecting the facts surrounding a claim of derivation or priority of invention. *FINA Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1474 (Fed. Cir. 1997). Without corroborating evidence, such as contemporaneous documents prepared by a putative inventor, circumstancial evidence about the inventive process or oral testimony by some third-party, a plaintiff in an action of this sort simply cannot meet the clear and convincing standard. *Ethicon*, 135 F.3d at 1461.

This rule rests on important policy considerations. "[T]he temptation for even honest witnesses to reconstruct, in a manner favorable to their own position, what their state of mind may have been years earlier, is simply to great to permit a lower standard." *Hess*, 106 F.3d at 980 (quoting *Amax Fly Ash Corp. v. United States*, 514 F.2d 1041, 1047 (Ct. Cl. 1975). "This language is similarly applicable to claims of co-inventorship made after a patent has been issued – particularly where, as here, the patent has been outstanding for a considerable time and the patented device has been successful. In that situation, too, there is an equally strong temptation for persons who consulted with the inventor and provided him with materials and advice, to reconstruct, so as to further their own position, the extent of their contribution to the conception of the invention." Hess, 106 F.3d at 980. In such a situation, the Court must insist that plaintiffs be able to prove their case by a very high standard of proof.

Plaintiffs have not once disputed that MDC first approached them with the concept of applying existing

fountain nozzle technology in the non-destructive, ultrasonic testing field. Plaintiffs may be able to establish that they recommended certain existing nozzle technology which ultimately prove useful to MDC's engineers. However, there is absolutely no evidence currently in the record that plaintiffs contributed in any significant manner to the conception of the invention, made a significant contribution to the patented idea or ever did anything more than merely explain to MDC personnel the then current state of the art. See Pannu, 155 F.3d at 1351.

Plaintiffs contend that their conceptual contribution was "[i]ntroducing water through a porous wall of permeable material, and then to allow the water to exit from a knife edged orifice in which the angle of the orifice was of the order of 30 degrees. Plenum chamber is cylindrical and non-tapered." Answer to Interrogatory No. 6. Plaintiff Deichmann stated in his deposition that the confidential material he disclosed to MDC included only the cylindrical shape, the use of a foam diffuser material, and the knife edge orifice. Deichmann Deposition pp. 173-74. It is clear that all of those elements were known in the prior art. In fact, Mark Fuller, an individual not a party in this lawsuit, had discussed each and every one of those concepts in a patent issued before MDC ever contacted plaintiffs.

In their Memorandum in Support of Plaintiffs' Opposition, plaintiffs attempt to present a somewhat different argument than that stated in their Third Amended Complaint. Plaintiffs argue not that they invented the concepts erroneously claimed as confidential information in the complaint, but rather that they conceived of applying those concepts in the ultrasonic testing environment. This argument is totally inconsistent with the factual

allegations section of plaintiffs' Third Amended Complaint as well as the Facts section of the same memorandum in which they bring this argument for the first time. This argument is further belied by plaintiff Deichmann's testimony that prior to MDC's contacting Usher's, no one at Usher's had any knowledge or experience in the ultrasonic testing field.

It is undisputed that MDC personnel first conceived of the idea of applying ornamental fountain technology in the ultrasonic testing field. This explains the initial phone call to Usher's, a local firm engaged in the design and manufacture of ornamental fountains. All Usher's did after that was demonstrate the use of an existing nozzle design. The particular design characteristics of that nozzle were virtually identical to those described in Fuller's patent. Explaining existing art is not co-inventorship.

Not only did MDC first contact Usher's, but they also refused to disclose to plaintiffs any extraneous information beyond what Usher's would need to know in order to adapt the existing nozzle to MDC's specifications. *See* Usher Deposition p. 87 lns. 4-18. This further demonstrates that plaintiffs' contribution amounted to nothing more than supplying existing art. It may be that the nozzle ultimately designed by MDC's engineers incorporated many of the same principles as the failure prototype produced by Usher's. However, as those principles were undisputedly general knowledge in the ornamental fountain industry, this supply of existing art cannot form the basis of a claim of co-inventorship.

The Court finds that plaintiffs have simply failed to allege facts sufficient to create an issue as to whether they were sufficiently involved in the conceptualization of the final and definite idea described in the patent at

issue here. Even if the testimony of Deichmann and the other Usher's employees who gave depositions in this case could create such an issue, plaintiffs have provided no contemporaneous documentation that they invented these concepts. Apparently plaintiffs provided no schematics or drawings to MDC at the time of their negotiations. Plaintiffs ultimately kept the only prototype nozzle ever produced. With no documentation, nor any other evidence whatsoever that they conceived the idea for the patent at issue, plaintiffs could never prove their claim to a jury by clear and convincing evidence. Accordingly, defendant is entitled to judgment as a matter of law on both inventorship and ownership of the '342 patent.

Conclusion

Plaintiffs' fail to state a viable claim of breach of contract. Their Third Amended Complaint identifies very specifically the information they considered confidential, and which plaintiffs allege MDC wrongfully disclosed. However, defendant has established beyond any issue whatsoever that plaintiffs' claimed confidential information was public knowledge before the rocky relationship between these parties even began. The contractual language drafted by plaintiffs themselves unambiguously excluded such information from coverage by the Non-Disclosure Agreement.

Plaintiffs' argument for correction of inventorship is similarly doomed by the undisputed facts. Plaintiffs admit that the concepts they claim as original in their complaint were actually patented by Mark Fuller before MDC ever contacted them. They attempt to salvage their claim by arguing that it was their idea to apply fountain technology in the ultrasonic testing environ-

ment. But this argument is wholly inconsistent with the undisputed fact that MDC contacted plaintiffs first with the express intention of learning state-of-the-art fountain technology for use in ultrasonic testing. Plaintiffs' incredible argument is further weakened by their admission that prior to their involvement with MDC they had no knowledge or experience in the ultrasonic testing field. A claim of co-inventorship cannot arise from the mere explanation of existing art to a party who wishes to apply that art in a different field. It is clear beyond dispute that that is what happened here. Therefore, summary judgment for defendant is correct in this ease.

IT IS HEREBY ORDERED, ADJUDGED and DECREED that defendant's Motion for Summary Judgment (#81) is **GRANTED.**

IT IS FURTHER ORDERED that this case is **DISMISSED** with prejudice.

Dated this 3rd Day of March, 1999.

/s/ Stephen N. Limbaugh
UNITED STATES DISTRICT JUDGE

APPENDIX F

[Filed OCT 28 1998]

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Case No. 4:97CV01913-SNL

RONALD S. DEICHMANN AND
USHER'S WATERWORKS, INC.,

Plaintiffs,

Vs.

THE BOEING COMPANY,

Defendant.

ORDER

This matter is before the Court on Plaintiffs' Motion to File First Supplemental Amended Complaint Under Seal (#73), filed October 23, 1998. In that motion, plaintiffs seek leave to file a so-called First Supplemental Amended Complaint. That complaint attempts to correct the serious pleading deficiencies of plaintiffs' Third Amended Complaint. This Court noted those deficiencies when it dismissed Counts II and IV of plaintiffs' Third Amended Complaint in Memorandum and Order (#72). Now plaintiffs purport to seek leave to file a supplemental complaint pursuant to Federal Rule of Civil Procedure 15 (d). That rule grants a court discretion to allow a party to file a "supplemental pleading

setting forth transactions or occurrences or events which have happened since the date of the pleading sought to be supplemented." Fed. R. Civ. P. 15 (d). However, the only difference between plaintiffs' proposed pleading and that which was previously dismissed is that plaintiffs now cite various provisions of the Uniform Commercial Code to support their allegation that the parties in this action entered an enforceable sales contract. Plaintiffs cite no new facts constituting a transaction or occurrence which has happened since the date of plaintiffs' filing their Third Amended Complaint. Therefore, Rule 15 (d) is not germane to this situation. Furthermore, in granting plaintiffs leave to file their Third Amended Complaint, this Court ordered that "No further amendments will be granted. . . ." Order (#47), July 17, 1998. In light of this warning to plaintiffs, this Court does not believe that justice requires it at this time to exercise its discretion in allowing plaintiffs to amend their complaint a fourth time. Accordingly, Plaintiffs' Motion to File First Supplemental Amended Complaint Under Seal (#73) will be denied.

IT IS HEREBY ORDERED that Plaintiffs' Motion to File First Supplemental Amended Complaint Under Seal (#73) is DENIED.

Dated this 28th Day of October, 1998.

/s/ Steven N. Limbaugh
UNITED STATES DISTRICT JUDGE

APPENDIX G

[Filed OCT 14 1998]

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Case No. 4:97CV01913-SNL

RONALD S. DEICHMANN AND
USHER'S WATERWORKS, INC.,

Plaintiffs,

Vs.

THE BOEING COMPANY,

Defendant.

MEMORANDUM AND ORDER

This matter is before the Court on Defendant the Boeing Company's Motion to Dismiss Counts II and IV of Plaintiffs' Third Amended Complaint (#53) filed August 4, 1998.

Background

Plaintiffs filed their Third Amended Complaint (#34) in four counts alleging breach of a non-disclosure contract and breach of a prototype construction contract, and making a claim for correction of inventorship or an alternative claim for declaratory judgment. Defendant filed this motion to dismiss plaintiffs' claim for breach of

the prototype construction contract and the declaratory judgment claim.

The transaction underlying this lawsuit involves an alleged agreement between plaintiff Usher's Waterworks (Usher's) and the McDonnell Douglas Corporation(MDC), defendant Boeing's predecessor in interest. Plaintiffs claim that sometime during 1989, MDC contacted Usher's requesting information regarding Usher's development of laminar flow nozzles. Usher personnel agreed to meet with MDC upon the condition that the parties would enter a confidentiality agreement concerning disclosure of information by Usher's to MDC.[1]

According to the complaint, the meeting went well enough between the parties that in October, 1989, MDC sent Usher's a "Request for Quotation" regarding the development of two prototype nozzles. That request included an assurance by two MDC officials that in the event of successful development, further terms could be discussed regarding Phases II and III. Usher's apparently sent a counter-offer to produce only one prototype nozzle. It is not clear from the complaint whether or not Usher's ever delivered that prototype nozzle. In their factual allegations section, plaintiffs allege that "Plaintiff Ronald S. Deichmann specifically recalls first conceiving, then constructing and disclosing to MDC personnel *the concept* of introducing water in a radial direction . . .."[2]

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[1] Usher's also alleges in Count I of the complaint that defendant breached this confidentiality agreement, but that count is not at issue in this motion to dismiss.

[2] The concept at issue in this lawsuit involves "the introduction of water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then allowing the water to exit from a knife-edged orifice in which

[footnote continued]

In Count II, plaintiffs again allege that the "*concepts* of Usher's Confiential [sic] Information including introducing water in a radial direction inwardly . . . was Usher's Confiential [sic] Information which was disclosed orally and in in [sic] at least one prototype delivered to MDC by Uhser's [sic] by Ronald S. Deichmann." The spelling and grammar of the complaint make it difficult for the court to discern whether or not actual prototypes were ever delivered to MDC, but as defendant has filed no counterclaim for breach, the Court will assume that at least one prototype was in fact delivered.

After submitting the first prototype, plaintiffs claim that they never heard from MDC again. Plaintiffs allege that MDC ultimately applied for and received a patent for some sort of laminar flow system which benefited from the concepts in the prototype nozzle. Based on Mr. Deichmann's claim that he specifically recalls conceiving this idea, plaintiffs allege that Mr. Deichmann's name was wrongly omitted from the patent application. Now plaintiffs seek damages, claiming MDC breached the production contract provisions that they should ultimately discuss the terms of Phases II and III of the nozzle project[3], and they seek a declaratory judgment that Mr. Deichmann's name should be added to the patent.

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the angle of the orifice is of the order of 30 degrees." Plaintiff's Third Amended Complaint, Factual Allegations ¶9. Apparently, this allows the production of a nozzle which can discharge water in a highly coherent stream. MDC sought this technology for use in ultrasonic inspection applications.

[3] "MDC (MCAIR) further breached the Prototype Construction Contract by entering into a Phase II Pilot Production Program and Phase III commercial Production without notifying Usher's or Ronald S. Deichmann, and without enetering [sic] into any discussions with Usher to supply the nozzles or 'determine any licensing arrangements with Usher's for marketing the nozzles to other

[footnote continued]

Discussion

This Court is bound by a stringent standard in passing on a motion to dismiss. The Court should not dismiss a complaint for failure to state a claim "unless it appears beyond a reasonable doubt that the plaintiff can prove no set of facts in support of his claim which would entitle him to relief." *Conley v. Gibson*, 355 U.S. 41, 45-46 (1957). The Court must view the complaint in the light most favorable to the plaintiff and should not dismiss it merely because the Court doubts that the plaintiff will be able to prove all of the necessary allegations. *Bennett v. Berg*, 685 F.2d 1053, 1058 (8th Cir. 1982). "Thus, as a practical matter, a dismissal under rule 12(b) (6) is likely to be granted only in the unusual case in which a plaintiff includes allegations that show on the face of the complaint that there is some insuperable bar to relief." *Fusco v. Xerox*, 676 F.2d 332, 334 (8th Cir. 1982).

The plaintiffs in this case have appended to their Opposition to Defendant's Motion to Dismiss certain documents outside the scope of the pleadings. A motion to dismiss pursuant to Fed.R.Civ.P. 13(b) (6) "must be treated as a motion for summary judgment when matters outside the pleadings are presented and not excluded by the trial court." *Woods v. Dugan*, 660 F.2d 379, 380 (8th Cir. 1981) (per curiam). When matters outside the pleadings are presented on a motion to dismiss, the court may either treat the motion as one to dismiss and exclude the matters outside the pleadings, or treat the motion as one for summary judgment and

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companies,' and disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees [sic] of ultrasonic equipment for testing aircraft and other parts." Plaintiff's Third Amended Complaint, Count II ¶9.

provide the parties with notice and an opportunity to provide further materials. *See Gibb v. Scott,* 958 F.2d 814, 816 (8th Cir. 1992); *McDonnell Douglas Corp. v. Sci Tech., Inc.,* 933 F. Supp. 822, 826 (E.D.Mo. 1996). In this case, there are such significant problems on the face of plaintiffs' pleadings that the Court chooses to disregard the matters outside the pleadings and treat the motion as a motion to dismiss.

I. *Breach of Prototype Production Contract*

In this case, defendant claims that the plaintiffs have failed to allege in Count II of their complaint the basic elements of an enforceable contract. Rather, the defendant argues, plaintiffs have pointed to an unenforceable "agreement to agree" upon the project's progression into phases II and III. This failure, the defendant argues, constitutes the kind of insuperable bar which will lead to the dismissal of a claim. The Court agrees.

In order to state a claim for relief in a breach of contract action under Missouri law, the plaintiff must allege: (1) an agreement between parties capable of contracting; (2) mutual obligations arising thereunder with respect to a definite subject matter; (3) a valid consideration; (4) part performance by one party and prevention of further performance by the other; and (5) damages measured by the contract and resulting from its breach. *Scher v. Sindel,* 837 S.W.2d 350, 354 (Mo. Ct. App. 1986). An agreement to agree at some time in the future "is a nullity." *Jenks v. Jenks,* 385 S.W.2d 370, 376 (Mo. Ct. App. 1964). In general, courts do not create contracts for the parties where there is no evidence of a meeting of the minds as to essential terms. *See United States v. 518.77 Acres of Land,* 545 F. Supp. 1246, 1247 (W.D.Mo. 1982).

In this case, there is no such indication of a meeting of the minds as to the progression through Phases II and III. The Court assumes that plaintiffs in fact delivered the prototype discussed in the forms exchanged by the parties and submitted to the Court as appendices to the complaint. However, there follows no presumption that this constituted the successful development contemplated in the original Request for Quotation. In fact, that Request outlined a schedule to be followed throughout the proposed Phases. Prior to the initiation of Phase II, plaintiffs were to build a second nozzle, and undergo trial production usage of this second nozzle for two weeks. However, in its counterproposal, Usher's only agreed to build the first nozzle. Furthermore, the very first paragraph of the Request for Quotation stated that MDC "would like this to be a phased approach with each phase being quoted separately as [the parties] proceed through the development process." Once the development process broke down, plaintiffs were left with an unenforceable agreement to agree. Under Missouri law, this is a nullity.

Plaintiffs argue in their Opposition to Defendant Boeing's Motion to Dismiss that substantive agreement as to the material terms of Phases II and III was not necessary. Rather, they argue, "the same prices and delivery interval followed in Phase I would be appropriate for the Phase II Pilot Production because the numer [sic] of nozzles needed for this Phase was not significantly more than for Phase I." Plaintiffs further urge the Court that "Phase III Commercial Production prices and delivery could bee [sic] pro rated, with a reasonable delivery schedule." Plaintiffs argue that the Uniform Commercial Code suggests such a result, however, Plaintiffs do not point the Court towards any specific provisions of the Code, nor do plaintiffs provide any case law supporting their position.

The Court disagrees that the gap-filler provisions of the U.C.C. can be used to provide such detailed and essential terms of a contract as price and delivery date when no agreement as to whether to even proceed has been reached. The Court further rejects plaintiffs' cavalier proposal that the Court extrapolate all terms of the production agreement from the terms of the prototype development.

First, the Court finds surprising plaintiffs' assertion that the numbers of nozzles called for in Phases II and III did not differ significantly from the number called for in Phase I. MDC originally ordered two prototype nozzles in Phase I. For one reason or another, Usher's declined to produce more than one prototype. In Phase II, MDC would have required eight nozzles. If Usher's could not produce two nozzles in Phase I, there is no reason for the Court to assume that they would have been willing or able to produce eight in Phase II, had the parties ever agreed to proceed to Phase II. Since the parties never even advanced to Phase II, there is really no reason for the Court to speculate as to what terms they would have come to in Phase II had they ever reached that stage.

Second, there is no reason to believe that the cost of production of the developed nozzles in Phases II and III would be comparable to the cost of the prototype. The Phase II - Pilot Production described in the Request for Quotation included further design enhancements and final design review and MDC approval before two pilot nozzles would be built by Usher's. After those two pilot units were built, MDC would have performed further tests before requiring the production of six additional units. Nowhere does Usher's allege that it

fulfilled the design enhancements or design review requirements found in Phase II.

All of this begs the question of where plaintiffs' allege these contractual obligations on Boeing/MDC's part originated. Plaintiffs point to a letter from MDC to Usher's outlining a proposed three phase project to be completed in parts, with no part being discussed or agreed upon until successful completion of each preceding part. However, nowhere do they allege that there was any agreement as to the essential terms, mutual obligation or consideration. Rather, plaintiffs skip directly to the breach and ask for damages. For these reasons, the Court holds that Usher's and Deichmann have failed to allege an enforceable contract as to Phases II and III which could have been breached by defendant. Therefore, defendant's motion to dismiss Court II of the third amended complaint will be granted.

II. *Declaratory Judgment Claim*

As to plaintiffs' claim for declaratory judgment, the defendant argues that plaintiffs' have no standing to bring this claim before the Court. In order to have standing to sue for a declaratory judgment regarding the validity and enforceability of a patent, a plaintiff must plead that an actual case or controversy exists between the parties regarding the issue of the patent's validity and enforceability. *See Cardinal Chem. Co. v. Morton Int'l Inc.*, 113 S.Ct. 1967, 1974 (1993). Advisory opinions are not permitted. *See Arrowhead Indus. Water, Inc. v. Ecolochem, Inc.*, 846 F.2d 731, 736 (Fed. Cir. 1988). Whether an actual case or controversy exists upon particular facts is a question of law. *See BP Chems. Ltd. v. Union Carbide Corp.*, 4 F.3d 975, 978 (Fed. Cir. 1993). The task of this Court is to look at the facts as pleaded and determine whether the elements of a case or controversy

were present when the suit was filed. *See BP Chems. Ltd. v. Union Carbide Corp.*, 757 F. Supp. 303, 304 (S.D. N.Y. 1991), aff'd 4 F.3d. 975 (Fed. Cir. 1993).

In stating a claim for declaratory judgment, plaintiffs must plead two elements to establish the existence of an actual case or controversy: First, the defendant's conduct must have "created on the part of the declaratory plaintiff a reasonable apprehension that it will face an infringement suit if it commences or continues the activity in question . . .." *Jervis B. Webb Co. v. Southern Sys., Inc.*, 742 F.2d 1388, 1398 (Fed. Cir. 1984). Second, "plaintiff must be engaged in an actual making, selling, or using activity subject to an infringement charge or must have made meaningful preparation for such activity." *Jervis B. Webb Co.*, 742 F.2d at 1399.

Plaintiffs in this case have failed to allege either of the two elements necessary to establish a case or controversy. They have not alleged any threatened litigation by defendant against them, nor any grounds for a reasonable apprehension of such litigation. Nor have plaintiffs alleged any activity on their own part that would lead to such litigation. Rather, plaintiffs concede that no actual controversy exists at this time. Plaintiffs assert a novel construction of the declaratory judgment statute and inform the court that they have apprehension that at some point during discovery or trial in this case, a controversy may arise. That is not enough to establish a case or controversy, and therefore, defendant's motion to dismiss plaintiffs' declaratory judgment claim will be granted.

Conclusion

Based on the foregoing reasoning,

IT IS HEREBY ORDERED that Defendant's Motion to Dismiss Counts II and IV of Plaintiffs' Third Amended Complaint is GRANTED.

Counts II and IV of Plaintiff's Third Amended Complaint are DISMISSED.

Dated this 14th Day of October, 1998.

/s/ Stephen N. Limbaugh
UNITED STATES DISTRICT JUDGE

APPENDIX H

[Filed JUL 17 1998]

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

No. 4:97 cv 1913 SNL

USHER'S WATERWORKS, INC., et al.,

Plaintiffs,

vs.

THE BOEING COMPANY,

Defendant.

ORDER

This matter is before the Court on Plaintiffs' motion for leave to file Plaintiffs' Third Amended Complaint (#34). Also, pending are Plaintiffs' motion to modify the scheduling order (#41), Defendant's motion to dismiss Count III of Plaintiffs' Second Amended Complaint (#27), and Defendants' motion to bifurcate trial and to stay damage discovery (#36). The Court has thoroughly considered all of pending motions and concludes as follows:

1) Plaintiffs shall be granted leave to file Plaintiffs' Third Amended Complaint. Although Plaintiffs' request is over three months out of time, the Court does not believe that allowing the amendment will cause Defen-

dant any undue burden. No further amendments will be granted, however, and the scheduling order shall otherwise remain unchanged.

2) In view of the Court's determination with respect to Plaintiffs' motion for leave to file Plaintiffs' Third Amended Complaint, Defendant's motion to dismiss Count III of Plaintiffs' Second Amended Complaint is moot. Defendant is free to refile this motion as it relates to Plaintiffs' Third Amended Complaint.

3) Defendant's motion to bifurcate trial and to stay damage discovery shall be denied.

Accordingly,

IT IS HEREBY ORDERED that on Plaintiffs' motion for leave to file Plaintiffs' Third Amended Complaint (#34) is GRANTED.

IT IS FURTHER ORDERED that Plaintiffs' motion to modify the scheduling order (#41) is GRANTED, as it pertains to the untimely filing of Plaintiffs' Third Amended Complaint.

IT IS FURTHER ORDERED that Defendant's motion to dismiss Count III of Plaintiffs' Second Amended Complaint (#27) is DENIED, as moot.

IT IS FINALLY ORDERED that Defendants' motion to bifurcate trial and to stay damage discovery (#36) is DENIED.

Dated this 17th Day of July, 1998.

/s/ Stephen N. Limbaugh
UNITED STATES DISTRICT JUDGE

APPENDIX I

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MO.
EASTERN DIVISION

Cause No. 4:97 CV 01913 SNL

Ronald S. Deichmann and
Ushers Waterworks Inc. Plaintiffs

v.

The Boeing Co., Defendant

MEMORANDUM IN SUPPORT OF PLAINTIFFS' OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

I THE FACTS

A reasonable juror would find the following Facts concerning this controversy.

1. Defendant's predecessor McDonnell Douglas Corp. (MDC) had been making ultrasonic testing equipment since approximately 1973. It was called automatic ultrasonic scanning systems AUSS. D. Ex. 1.

2. In 1989 an MDC engineer learned that Usher's Water-Works a small St. Louis ornamental fountain company had used laminar flow in fountain nozzels located in amusement parks.

3. MDC contacted Usher's to determine whether or not technology in the fountain nozzles would be adaptable for ultrasonic testing systems.

4. Defendant recognizes that ultrasonic testing systems to identify defects in structural parts are an entirely different area of technology than water fountains in amusement parks. D. Ex. 1; and Footnotes 2 & 3.

5. Prior to demonstrating fountain designs to MDC Usher's required MDC to sign a non-disclosure agreement. The non-disclosure agreement was executed on July 10, 1989 by MDC and by Usher's on Aug. 10, 1989. P. Ex. 7.

6. The agreement provided that MDC, its subsidiaries and affiliates maintain confidential (Par. 3) for five (5) years from that date (Par.8), with certain exceptions to be confidentiality agreement stated in paragraph No. 5 Ushers' confidential information disclosed by Usher's to MDC. Paragraph 4 provided that recipient agrees not to engage in any communication with third parties regarding the confidential information without prior written consent of Ushers Waterworks. Paragraph 6 of the agreement further provide that concerning the confidential information disclosed in Paragraph 2 all property rights, including not limited to, patent rights and trade secrets, shall remain our property. P. Ex. 7.

7. In Aug. 1989 two or three MDC AUSS personnel went to Usher's office. Usher's personnel Ronald S. Deichmann and/or David Usher demonstrated a nozzle operation to the MDC personnel. Defendant contends that Usher's did not reveal to MDC any internal design information. However, a reasonable juror could find that David Usher disclosed the design to MDC at this meeting. P.Ex. 17 p.73 et seq.

8. Defendant contends that the features of the nozzle demonstrated to the MDC in August 1989, based on Fuller U.S. patent 4,795,092 (D. Ex. 8) were well-known

and publicly available prior art. However a reasonable juror would find that the cylindrical plenum chamber with a knife edge orifice and a porous material within the cylindrical platinum chamber for reduced turbulance and increased laminar flow had never previously been utilized in an ultrasonic testing system. P. Ex 1C. A reasonable juror would further find that after succesful testing at Usher's facility with the transducer provided by MDC, this became an Usher's trade secret. P. Ex. 17 et seq. P. Ex.16. 137 et seq.

9. MDC employees were interested and and a reasonable juror would find that on October 30th, 1989 a request for quote was issued by MDC to Usher's, P Ex. 10, including Phase I Prototype Production; Phase II Pilot Production and Phase III Commercial Production. The Request for quote further provided that all Phase 1 Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II MCAIR and Usher will determine any license agreements for marketing the nozzles to other companies. P. Ex. 10.

10. And a purchase order agreement P. Ex. 13 was entered into between the Parties for an Initial Phase I for $18,500. Usher's would provide three sizes of nozzles required by MDC to fit into the existing MDC ultrasonic testing equipment.

11. A reasonable juror would find Ronald S. Deichmann P. Ex. 16, 154 et seq. and David R. Usher P-Ex. 17, 117 et seq. visited MDC in early 1991 and a prototype device was tested at the MDC. It produced a very long laminar stream, which was one of the MDC objectives.

12. Defendant contends that the device was never shown to MDC personnel, and that Usher's never provided the MDC with drawings, specifications and photographs, But a reasonable juror would find Ronald S. Deichmann specifically disclosing the device and its internal parts to MDC personnel including Richard Lawson P. Ex.16-154 et seq.; 276 et seq. who were present at the demonstation, and David Usher as well. P.Ex.17-118 et seq. a reasonable juror would find that all of the features shown on in Ex. 1D were disclosed to MDC personnell at the demonstration except the internal taper 27 of the knife edge orifice. MDC copied everything else.

13. A reasonable juror would find that the purchase order P. Ex. 13 provided that a Development Program would be instituted including Phase I Prototype Production, Phase II Pilot Production and Phase III Commercial Production. But MDC did not permitt Ushers to provide nozzles for the Pilot Productiobn and Commercial Phases.

14. A reasonable juror would find that Prof. Charles McManus, Intellectual Property Instructor at the Washington University School of Law, has rendered an opinion P. Ex. 14, in which he concludes that the confidentiality agreement entered into between MDC and Usher's created a confidential relationship between the Parties. In view of this special relationship MDC had a duty to Uhser's to allow Usher's to provide other prototype construction for the Pilot and Production Phases of the Program. Instead MDC made no further contact whatsoever with Usher, and thereby breached this confidential obligation.

15. A reasonable juror would further find that if there were problems with prototype nozzles which Ushers

presented MDC had a duty to advise Ushers of any problems with the prototypes and any needed modifications to the prototypes, so that Usher's could provide the prototypes in the Pilot Production and the Commercial Production Phases. MDC clearly breached this implied understanding with Ushers P. Ex. 14.

16. A reasonable juror would find that MDC, after taking all of the features shown in Ex. 1C as being their own, subsequently added the internal taper 27 on the knife edge orifice to reflect the ultrasonic waves into the porous material and the wall and prevent them from going back to the transducer. P. Ex.16-276 et seq.

17. A reasonable juror would find within about a year of the demonstration, a patent disclosure was filed by several MDC people including Richard Lawson in the MDC Patent Dept. disclosing substantially the identical construction P. Ex. 2 disclosed by Usher's to MDC. The patent disclosure included radial water entry into a cylindrical chamber. It included the provision of a chamber upstream of the porous material to equalize the pressure in the system. It included a layer of porous material through which the the water passed. In the cylindrical chamber at the opposite end was a knife edge orifice.

18. The reasonable juror would find the only difference in the patent disclosure from Usher's design was in the disclosure the knife edge orifice included an internal tapered surface 27 to reflect ultrasonic waves from bouncing back to the transducer, as discussed above.

19. A reasonable juror would find as a result of this combined design an ultrasonic testing system was provided which would discern imperfections including cracks and imperfections aircraft parts particularly with ribs would be much more effectively determined during the ultrassonic testing. P. Ex. 2.

20. A reasonable juror could further conclude that a matter of small difference concerns the shap of the layer of porous material. Ronald S. Diechmann testified that after water passed through the pressure chamber, the water would flow longtidunially through the porous material and then inwardly into the mid portion of the cylindrical chamber. P-Ex.16-277. In P. Ex.17 David Usher-74 et seq. testified that the equalization chamber was located in the upper portion of the cylindrical shape. Either of these basic designs provides a chamber for pressure equalization before the water enters the layer of porous material.

21. Defendants contend that shape of an annular layer originated from a paper in 1987 D. Ex. 16. This is an air system with no water. A sound speaker was present in the place of a transducer. Particulate material exited the chamber. There is no evidence of laminar flow. A reasonable juror would conclude that this paper was not the origination of the MDC nozzle construction because no water laminar flow stream resulted.

22. A reasonable juror would conclude the basic nozzle construction to MDC was Ronald S. Deichmann and or David Usher's disclosure to MDC. Ex. 1C This is strongly suggested by the Lawson MDC disclosure, Ex. 2 on the next to the last page, suggests additional uses of the concept includes fountain technology. A reasonable juror would find that this is an admission that Usher's Waterworks was true basis of the MDC disclosure to its Patent Dept. and the resulting 5,431,342 patent.

23. A reasonable juror would find that Usher's trade secret is the basis of why MDC obtains better results (longer laminar flow stream and better signal to noise ratio) P. Ex. 2 in their own ultrasound testing of aircraft

parts. Usher's trade secret was stated to be an ultrasonic testing break through in an MDC Co. pul.ication P. Ex.3. Ushers trade secret became standard in in late 1991 for all of the ultrasonic tesing machines utilized by MDC.P. Ex.19-61.

24. Moreover a reasonable juror would find that ultrasonic testing machines including Ushers trade secret were sold to Defendant Boeing at the facilities at Spokane Washington and Wichita Kan. P. Ex. 19 D-62. Futhermore Ushers trade secret was contained in ultrasonic testing machines sold all over the United States and the world. There are at least 21 untrasonic testing units which contain Ushers trade secret which are in use in the United States and aboad. Lawson P. Ex. 19.-61.

* * *

APPENDIX J

[OCT 23 1998]

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Cause No. 4:97CV01913SNL

Usher's WaterWorks, Incorporated

v.

The Boeing Company,

PLAINTIFFS MOTION TO FILE FIRST SUPPLEMENTAL AMENDED COMPLAINT UNDER SEAL

The attached First Supplemental Amended Complaint under Rule 15(d) contains changes to Count II only and includes specific relevent portions of the UCC RSMo RSMo. 400.2-204 et seq. in Missouri. These additions are believed to overcome the problems which the Court discussed in its Memorandum and Order of Oct. 14, 1998. Ex. A. Leave to file this First Supplemental Amended Complaint under Rule 15 (d) is requested for the reasons stated in the attached Memorandum of Law in Support of Plaintiffs Motion to file First Supplemental Amended Complaint Under Seal.

/s/ Henry W. Cummings
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(314) 949-9408 #6620
Attorney for Plaintiffs

[Certificate of Service Omitted In Printing]

APPENDIX K

[Filed Oct 23 1998]

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Cause No. 4:97CV01913SNL

Ronald S. Deichmann, and
Usher's WaterWorks, Incorporated

v.

Boeing Company having an office in Missouri
at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146,
formally McDonnell Douglas Corporation

Jury Trial Demand

FILED UNDER SEAL

FIRST SUPPLEMENTAL COMPLAINT FOR BREECH OF CONFIDENITALITY CONTRACT, BREACH OF NOZZLE CONSTRUCTION CONTRACT AND CORRECTION OF INVENTORSHIP UNDER 35 USC 256, OR DECLARATORY JUDGMENT UNDER 28 USC 2201 AND 28 USC 2202

I. INTRODUCTION

This is a complaint for compensatory damages for breach of contract by Defendant and predecessor McDonnell Douglas Corp. (MDC) of the terms of a Confidential agreement; breach of the terms of a separ-

rate Nozzle prototype Construction contract including Phase I Prototype Production, Phase II Pilot Production and Phase III Commercial Production under the Uniform Commercial Code (UCC) R.S. Mo. 400.2-204 et seq for compensatory damages for failure to compensate Plaintiffs for the breach of the confidentiality contract and the Nozzle construction contract up to the present time; for a reasonable royalty for the future use, sale and lease of the confidential information and prototype design; for punitive damages for the willful violation by MDC of the terms of the Confidential agreement and the terms of the Nozzle Prototype Construction Contract, for Correction of Inventorship under 35 USC 256 of U.S. Patent 5,431,342 (Exhibit A) for the error, without deceptive intent, of MDC for failure to name Plaintiff Ronald S. Deichmann as co-inventor of the patent, and Plaintiff Ushers' WaterWorks as part owner of the Patent; or in the alternative for a Declaratory Judgment of Inventorship Correction under 28 USC 2201 and 28 USC 2202, and for compensatory damages for failure to compensate Plaintiffs for the inventive contribution to U.S. Patent 5,341,342.

II. THE PARTIES

Plaintiff Usher's WaterWorks, Incorporated, is a Missouri corporation doing busines at 1136 Washington in St. Louis, Missouri 63101.

Plaintiff Ronald S. Deichmann is an individual residing at 6040 Circle Drive, House Springs Mo., 63119, and is President and a part owner of Plaintiff Ushers' WaterWorks.

Defendant Boeing Company is a corporation located in Seattle Washington, doing business in St. Louis, Missouri as Boeing Company, having an office at Airport Rd. and

McDonnell Blvd. St. Louis Mo. 63146, on information and belief, has taken over the assets and liabilities of MDC, having an address of P.O. Box 516 St. Louis, Missouri 63166.

III. JURISDICTION

This Court has jurisdiction of this case because a federal question is involved under 28 USC 1331; 28 USC 1338, 28 USC 2201 and 28 USC 2202 and 35 USC 256, since there is diversity of citizenship and the amount in controversey exceeds $75,000 under 28 USC 1332, and the case involves a request for Correction of Inventorship of a U.S. Patent under 35 USC 256, or in the alternative a Declaratory Judgment of Patent Invalidity under 28 USC2201 and 28 USC 2202. Venue is proper in the Eastern District of Missouri because both the plaintiffs and the defendant have offices in the Eastern District od Missouri.

IV. FACTUAL ALLEGATIONS

1. Sometime during the calendar year 1989, the specific date uncertain, Defendant's Predecessor, McDonnell Douglas Corporation (MDC) contacted Plaintiff Usher's WaterWorks, Incorporated and requested information concerning Plaintiff Usher's WaterWorks laminar flow nozzle apparatus.

2. Plaintiff's personnel agreed to meet with MDC personnel, but required as a condition of the meetings that MDC enter into a confidential agreement concerning disclosure of information by Plaintiff Usher's WaterWorks to MDC.

3. On or about August 10th, 1989 a confidential agreement was entered into between Plaintiff and MDC. It was executed by Mr. B. J. Whiting of MDC and Mr.

David Usher of Plaintiff Usher's WaterWorks (Exhibit B).

4. This agreement provided that Plaintiff Usher's WaterWorks would disclose confidential and proprietary information to MDC on the condition that MDC (recipient) agreed not to disclose the Information to third parties and not to engage in any communication with third parties regarding the confidential information without priot written consent of Plaintiff Usher's WaterWorks, Par. 3 and 4.

5. On information and belief, this confidential information was disclosed to specific MDC personnel including Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems. Ex. D is a photocopy of the their business cards given to Plaintiff Deichmann at one or more of the meetings.

6. On or about Oct. 30, 1989 MDC issued Request for Quotation #DLF1089-02, to Dave Usher then President of Usher's Waterworks, attached Ex.E. On page 2, the following language appears "2. Please note: All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

7. On Jan 29, 1990 Plaintiff Ronald S. Deichmann, then Vice President and General Manager of Usher's Waterworks wrote to Rich Lawson, then Unit chief-Automated Systems of MDC, Ex. F, attaching two Proposed changes as SPECIAL TERMS AND CONDITIONS as an Attachment to MDC Form MDC 858 entitled SPECIALTY NOZZLE PURCHASE AGREE-

MENT to the Request for Quotation Ex. E, the first to Pars 1.1 to 1.1.7 and the second to Pars 1.1.8 and 1.1.9., attached as Exs. G. and H respectively. Each contained the same language as the Request for quote in respective Pars 12.01 concerning join ownership of Phase I Developments.

8. On or about Feb. 28, 1990 MDC issued Purchase Order No. V00344 to Usher's Waterworks Ex. I, which incorporated MDC 858 and MDC Form 858 by reference into the Purchase Order on page 8. While three (3) change Orders were made to the Purchase Order V00344 on respectively March 14, 1990, Aug. 13, 1990 and Sept. 4, 1990, none of these change Orders changed the the language provided in the the MDC request for Quote "All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

9. In accordance with Phase I of the Prototype Construction contract, Plaintiff Ronald S. Deichmann specifically recalls first conceiving, then constructing and disclosing to MDC personnel the concept of introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from the chamber through a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees, hereinafter Usher's Confidential Information. Attached Ex. C illustrates in part this construction.

10. This Usher's Confiential Information including at least one prototype was disclosied to one or more of the individuals Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive

Testing, and Mr. Mark Leach also of Automated Systems. This subject matter is contained in at least claims 8-13, 21-23, 27, 29, and 32 of US Patent 5,431,342, and therefore he is at least a co-inventor of the patent.

11. There were approximately four meetings between MDC personnel and Plaintiff Ronald S. Deichmann during 1989 and 1991.

12. Furthermore, prior to submitting the patent application Ser. No. 980,344 to the U.S. Patent and Trademark Office on or about Nov. 23, 1992,342 within the five year term of the Confidentiality Agreement (Exhibit B, Par. 8), and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent5,431,342 (Exhibit B, Par. 8), MDC breached the Confidentiality Agrrement by making no effort to contact Plaintiff Ushers' Water-Works as required by the agreement and obtain consent to disclose the confidential information to the U.S. Patent and Trademark Office and the Examiners therein as required by the agreement (Exhibit B-Par. 4).

13. In addition, prior to filing of the 980,344 application, there was no written or oral communication between MDC and Plaintiffs concerning whether or not Plaintiff Ronald S. Deichmann had made an inventive contribution to the invention and should have been included in the application.

14. In accordance with the prototype Construction Contract, a Development Program was introduced at MDC to take the prototypes and Usher's confidential information received from Plaintiffs and utilize it to form a laminar flow system to be utilized in ultrasonic testing of MDC aircraft parts. In the Development Program the Usher's Confidential Information was added to and merged with MDC ultrasonic testing information and data to form Phase I Confidential Information.

15. MDC breached it's Prototype Construction contract with Plaintiffs Usher's WaterWorks that "all phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications and prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies." because this Phase I confidential subject matter was placed in the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent5,431,342, by MDC without discussing with and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the confidential Phase I Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

16. On information and belief MDC (MCAIR) further breached the Prototype Construction Contract by entering into a Phase II Pilot Program and then Phase III Commercial Production without notifying Usher's or Ronald S. Deichmann, and without enetering into any discussions with Usher to "determine any licensing agreements for marketing nozzles to other companies", before disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic testing equipment.

17. After the third change Order was issued by MDC to Purchase Order V00344 on or aboiut Sept. 4, 1990, nothing further was heard from MDC concerning the Development Program until U.S. Patent 5,431,342 (Exhibit A) was issued to MDC personnel. Consideration of Exhibit A reveals that Plaintiff Ronald S. Dieckmann was not included as an inventor of the patent.

18. In failing to name Ronald S. Deichmann as a co-inventor of Application Ser. No. 980,344 filed Nov.23, 1992, and Application Ser. No. 164,662 filed Dec. 8, 1993, MDC, through error and without deceptive intent, misrepresented the inventorship of the applications.

19. Furthermore, there was no offer of MDC to Plaintiffs for compensation for the contribution made to the concept by Ronald S. Deichmann which was agreed to be "co-owned" in the Prototype Construction Agreement between MDC and Usher's.

20. On information and belief, MDC breached the Prototype construction contract by proceeding with Phase II Pilot Production and Phase II Commercial Production without allowing Plaintiffs to supply the nozzles, and MDC and Defendant Boeing are utilizing Usher's Confidential Information and Phase I Confidential Information to ultrasonically test aircraft parts and other parts, and to sell and lease ultrasonic machines containing Usher's Confidential Information and Phase I Confidential Information to MDC customers and Boeing customers to ultrasonically test aircraft parts.

21. Diligent efforts to resolve this matter amicably without litigation were attempted by Plaintiffs with letters and over the telephone, since Oct.1966. But these efforts were unsuccessful, necessitating the filing of this law suit.

22. The attached third amended complaint Ex. B. was based upon information received by plaintiffs as a result of Defendant's response to Plaintiffs' Request for Production of Documents. Since Plaintiffs did not previously possess the documents it was not possible for Plaintiffs to previously include the allegations contained in the Third Amended Complaint.

23. After the Third Amended Complaint was filed Defendant filed a Memorandum in Opposition to Plaintiffs' Motion to Modify Scheduling Order served July 10, 1998 Ex. C., arguing that filing of the Third Amended Complaint should be denied, basically on the same argements contained in Defendant's Motion served on Aug 4, 1998.

24. Since the Court granted leave to file the Third Amended Complaint in its Order dated July 17, 1998, Ex. D., Plaintiffs believed that the issue of the substance of the Third Amended Complaint had already been decided by the Court.

25. Therefore the Undersigned obtained a Technical and a Legal Expert and had them rended opinions on the subject matter of Court I-III of the Third Amended Complaint. See attached Exs. E & F and are seriousely prejudiced by the Court's dissmisal of Count II.

COUNT I BREACH OF CONTRACT TO NOT DISCLOSE CONFIDENTIAL INFORMATION TO THIRD PARTIES AND FOR UNAUTHORIZED USE OF CONFIDENTIAL INFORMATION

It is urged that this Court declare:

1. That MDC breached it's contract with Plaintiff Usher's WaterWorks by disclosing Usher's Confidential Information received by MDC from Plaintiffs including at least in part the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, without obtaining the written approval of Plaintiff Usher's WaterWorks to submit the information to a third party, the U.S. Patent and Trademark Office and its Examiners, and on information and belief disclosing said Usher's Confidential Information to Defendant and to

MDC's and Boeing's customers including, but not limited to, purchasers, licencees, and leasees of ultrasonic equipment for testing aircraft and other parts.

2. Order an accounting of any and all machines built by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs; any and all machines sold, licensed or leased by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs.

3. Award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, licensses and other customers of ultrasonic testing of aircraft and other parts up to and including the present time of the said Uhser's Confidential Information supplied to MDC by Plaintiffs.

4. Order punitive damages against Defendant because of MDC's wanton failure to comply with the terms of the confidential information agreement including failing to obtain prior permission from Plaintiff Usher's WaterWorks before disclosing Usher's Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Usher's Confidential Information to Boeing and customers of MDC and Boeing and for failing to compensate Plaintiffs for their use of the said Usher's Confidential Information in ultrasonic testing of aircraft and other parts.

5. Order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Usher's Confidential Information.

5. Order such other and further relief as the Court may deem appropriate.

6. A jury trial is requested.

COUNT II BREACH OF PROTOTYPE CONSTRUCTION THAT ALL PHASE I DEVELOPMENT WILL BE CONSIDERED AS C0-OWNED BY MCAIR AND USHERS FOR USE IN ULTRASONIC INSPECTION APPLICATIONS

1. Paragraphs 1 through 21 of Plaintiffs' Factual Allegations are hereby incorporated herein by this reference as if fully set forth herein.

2. It is urged that this Court hold that MDC breached it's contract with Plaintiffs Usher's Water Works that "all phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies." The concepts of Usher's Confiential Information including introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees was Usher's Confiential Information which was disclosed orally and in in at least one prototype delivered to MDC by Uhser's by Ronald S. Deichmann. MDC added additional Phase I confidential information, including, but not limited to, ultrasonic testing information and data. MDC breached the Prototype Construction contract because this Phase I confidential subject matter was placed in the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, and at least claims 8-13, 21-23, 27, 29, and 32 of US Patent 5,431,342, by MDC without discussing with and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the confidential Phase I

Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

3. MDC (MCAIR) further breached this Prototype Construction Contract by entering into a Phase II Pilot Production Program and Phase III commercial Production without notifying Usher's or Ronald S. Deichmann; without entering into any discussions with Usher to supply the nozzles or "determine any licensing agreements for marketing nozzles to other companies", before disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic equipment for testing aircraft and other parts.

4. Although the precise terms of the contradtfor the Phase II Pilot Production Phase and Phase III Commercial Production Phase were not specified in the contract, the contract was still valid and enforceable under the Uniform Commercial Code (UCC) which was in effect in Missouri at the time of making the Nozzle Prototype Production contract. RSMo. 400.2-204 provides in Sec. (3) "Even though one or more terms are left open a contract for sale does not fail for indefinitness if the parties have intended to make a contract and there is a reasonable basis for givingan appropriate remedy." The parties clearly intended to make a contract. prototype nozzles were delivered by Plaintiffs and financial consideration was paid for them by MDC.

5. Concerning price, 400.2-305 provides that if the price is left open, "the price is a reasonable price at the time of delivery". Thus failure to state prices of the nozzles for the Pilot Production and Commercial Phases did not invalidate the contract. These additional prices

could be readily determined based on Plaintiffs' costs a and a reasonable mark-up.

6. Concerning time for shipment or delivery, 400.2-305 provides that if the time for shipment or delivery is not stated it "shall be a reasonable time", and (2) where the contract procides for successive performances, but is indefintie in duration, it is valid for a reasonable time unless terminated by either party. (3) requires that termination by one party be notified to the other party. Delivery dates for the Pilot Production and Commercial Production Phases could be readily worked out between the parties. No termination notice was received by Plaintiffs and on information and belief none was sent by MDC.

7. 400.2-203 allows contracts for the requirements of the buyer, even if the amount of the requirements is unknown. Thus the nozzle requirments of the Pilot Production and Commercial Production Phases were covered by the UCC, and both were breached by MDC in failing to allow Plaintiffs to supply them.

8. 400.1-203 provides for an obligation of good faith to the parties to the contract. This "good faith" obligation was breached by MDC in failing to notify Plaintiff Deichamm of MDC's intent to file a patent application, and failing to notify Plaintiffs of any proposed termination of the Nozzle Prototype Production contract.

9. Thus the Court is requested to hold that MDC breached the Nozzle Prototype production contract and order an accounting of any and all machines built by MDC and Defendant embodying the said Phase I Development Confidential Information, the Phase II Pilot Production, and Phase III Commercial Produc-

tion, any and all machines sold, licensed or leased by MDC and Defendant embodying the said Phase I Development Confidential Information, including the Phase II Pilot Production and the Phase III Commercial Production.

10. The Court is requested to award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time of the said Phase I Development Confidential Information, including the Phase II Pilot Production and the Phase III Commercial Production.

11. The Court is requested to order punitive damages against Defendant because of MDC's wanton failure to comply with the terms of the Prototype Construction agreement including failing to obtain prior permission from Co-Owner Usher's WaterWorks before disclosing Phase I Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Phase I Confidential information to Boeing and customers of MDC and Boeing, without discussing and determining licensing agreements; for failing to include Plaintiffs in Phase II Pilot Production and Phase III Commercial Production; and for failing to compensate Plaintiffs for their use of the said Phase I confidential information in ultrasonic testing of aircraft and other parts.

12. The Court is requested to order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Phase I confidential information, including Phase II Pilot Ptoduction and Phase III Commercial Production.

13. The Court is requested to order such other and further relief as the Court may deem appropriate.

14. A jury trial is requested.

COUNT III CLAIM FOR CORRECTION OF INVENTORSHIP UNDER 35 USC 256

1. This is a claim for Correction of Inventorship under 35 USC 256 to add Mr. Ronald S. Deichmann as co-inventor of US Patent 5,431,342, and to name Plaintiff Usher's Water Works as part owner of the Patent. This Court has jurisdiction under the patent laws of the United States under 28 USC 1338 and 35 U.S.C. 256. Venue in this district is proper pursuant to 28 U.S.C. §. 1391 (b) and 1400 (b).

2. Plaintiff realleges and repeats Paragraphs 1 through 21 of Plaintiffs' Factual Allegations by this reference as if fully set forth herein.

3. WHEREFORE, Plaintiff hereby requests judgment as follows:

4. Declare that the inventorship of U.S. Patent 5,431, 342 is presently incorrect due to error, by MDC without deceptive intent, for failing to name Plaintiff Ronald S. Dieckmann as a co-inventor of the patent for his innovative contribution to the claimed subject matter in the patent.

5. Order that Plaintiff Ronald S. Dieckmann's name be added to U.S. Patent 5,431, 342 as co-inventor of U.S. Patent 5,431,342.

6. Order that Usher's WaterWorks be named as co-owner of U.S. Patent 5,431, 342.

7. Order and accounting of any and all machines built by MDC and Defendant embodying the speci-

fication and claims of US Patent 5,431,342; any and all machines sold or leased by MDC and Defendant embodying the specification and claims of US Patent 5,431,342.

8. Award compensatory damages to Plaintiffs for the use of the claimed patented concept by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time.

9. Order a reasonable royalty for future use, sale and lease of the patented concept by MDC and Boeing be payable to Plaintiff Usher's WaterWorks.

10. Order such other and further relief as the Court may deem appropriate.

COUNT IV ALTERNATIVE CLAIM FOR DECLARATORY JUDGMENT

1. This is an alternative claim for Declaratory Judgment and Title 28, United States Code, Sections 2201 and 2202, in respect of an actual controversy of which this Court has juridication under the patent laws of the United States (35 USC 100 et seq.) Venue in this district is proper pursuant to 28 USC 1391 (b) and 1400 (b).

2. There is an actual controversy between Plaintiffs and Defendants in that, *inter alia,* Defendant has contended and continues to contend that it is ole owner of said Letters Patent and has the sole right to bring suits for infringement thereof, that said Letters Patent was duly and legally issued and is valid; whereas Plaintiff has and will continue to contend that said Letters Patent is invalid and void and unenforceable for failure to name

Planintiff's personnel as sole or co-inventor, and as such Plaintiff is sole or part owner of said Patent.

3. Plaintiffs reallege and repeat Paragraphs 1-21 of the foregoing FACTUAL ALLEGATIONS inclusive with the same force and effect as if were set forth herein, except as to Paragraph No. 14, in failing to name Ronald S. Deichmann as inventor or co-inventor of Application Ser. No. 980,344 filed Nov.23,1992, and Application Ser. No. 164,662 filed Dec. 9, 1993 MDC knowingly and willfully misrepresented the inventorship of the application, a material fact, and thus perpetrated a fraud upon the U.S. Patent & Trademark Office.

WHEREFORE, Plaintiff hereby requests judgment as follows:

4. Declare that the inventorship of U.S. Patent 5,431, 342 is presently incorrect due to error, by MDC without deceptive intent, for failing to name Plaintiff Ronald S S. Dieckmann as a co-inventor of the patent for his innovative contribution to the claimed subject matter in the patent.

5. Order that Plaintiff Ronald S. Dieckmann's name be added to U.S. Patent 5,431,342 as co-inventor of U.S. Patent 5,431,342.

6. Order that Usher's WaterWorks be named as part owner of U.S. Patent 5,431,342.

7. Order and accounting of any and all machines built by MDC and Defendant embodying the specification and claims of US Patent 5,431,342; any and all machines sold or leased by MDC and Defendant embodying the specification and claims of US Patent

8. Award compensatory damages to Plaintiffs for the use of the claimed patented concept by MDC and

Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time.

9. Order a reasonable royalty for future use, sale and lease of the patented concept by MDC and Boeing be payable to Plaintiff Usher's WaterWorks.

10. Order such other and further relief as the Court may deem appropriate.

Respectfully submitted,

/s/ Henry W. Cummings
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[Certificate Of Service Omitted In Printing]

APPENDIX L

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Cause No. 4:97CV01913SNL

Usher's WaterWorks, Incorporated

v.

The Boeing Company

MEMORANDUM OF LAW IN SUPPORT OF
PLAINTIFFS MOTION TO FILE
FIRST SUPPLEMENTAL AMENDED COMPLAINT
UNDER SEAL

1. Rule 15 (d) provides in part "Upon motion of a party the court may,upon reasonable notice and upon such terms as are just, permit the party to serve a supplemental pleading setting forth transactions or occurrences or events which have since the date of the pleading sought to be supplemented.".

2. The attached First Supplemental Amended Complaint under Rule 15(d) contains changes to Count II only and includes specific relevent portions of the UCC RSMo RSMo. 400.2-204 et seq. in Missouri. These additions are believed to overcome the problems which the Court discussed in its Memorandum and Order of Oct. 14, 1998. Ex. A. The attached third amended complaint Ex. B. was based upon information received by plaintiffs

as a result of Defendant's response to Plaintiffs' Request for Production of Documents. Since Plaintiffs did not previously possess the documents, it was not possible for Plaintiffs to previously include the allegations contained in the Third Amended Complaint.

3. After the Third Amended Complaint was filed Defendant filed a Memorandum in Opposition to Plaintiffs' Motion to File Third Amended complaint served June 19, 1998 Ex. C., arguing that filing of the Third Amended Complaint should be denied basically for the same reasons contained in Defendant's Motion to dismiss served on Aug 4, 1998.

4. Since the Court granted leave to file the Third Amended Complaint in its Order dated July 17, 1998, Ex. D. Plaintiffs believed that the Court had considered Defendant's arguments made in Ex C., and that the issue of the substance of Count II of the Third Amended Complaint had already been decided by the Court. Only Count III was left open.

5. Therefore the Undersigned obtained a Technical Expert and a Legal Expert and had them render opinions on the subject matter of Count I-III of the Third Amended Complaint, attached as Exs.E. & F. Both Expert Opinions found the contract alleged in Count II to be valid and enforceable.

6. Plaintiffs are seriousely prejudiced by the Court's dissmisal of Count II in the Third Amended complaint, and the fact that the Experts addressed the merits of Count II in their Opinions.

7. Count II was only contained in the third Amended Complaint, and not in the previously filed complaints. It therefore is believed to be fair and just to give Plaintiffs at least one opportunity to correct any deficien-

cies in Count II, particularly when Plaintiffs have been prejudiced as described above.

8. Both Defendant's Argument and the Court's Opinion are directed to the position that there were missing terms in the Nozzle Prototype construction contract, and that the contract was not valid and enforceable because of these missing terms.

9. Although the precise terms of the contract for the Phase II Pilot Production Phase and Phase III Commercial Production Phase were not specified in the contract, the contract was still valid and enforceable under the Uniform Commercial Code (UCC). The UCC was in effect in Missouri at the time of making the Nozzle Prototype Production contract. RSMo. 400.2-204 provides in Sec. (3) "Even though one or more terms are left open a contract for sale does not fail for indefinitness if the parties have intended to make a contract and there is a reasonable basis for giving an appropriate remedy." The parties clearly intended to make a contract. Prototype nozzles were delivered by Plaintiffs and financial consideration was paid for them by MDC.

10. Concerning price the UCC in RSMo. 400.2-305 provides that if the price is left open, "the price is a reasonable price at the time of delivery". Thus failure to state prices of the nozzles for the Pilot Production and Commercial Phases did not invalidate the contract. The reasonable prices may be readily determined based on Plaintiffs' costs and a reasonable mark-up. See Sedmak v. Charlie's Chevolet 622 S.W. 2d. 694 (Mo. App. 1981); Allied Disposal Inc. v. Bob's Home Service, Inc. 595 S.W.2d 417 (Mo. App. 1980).

11. Concerning time for shipment or delivery, 400.2-309 provides that if the time for shipment or delivery is not stated it "shall be a reasonable time", and (2)

where the contract procides for successive performances, but is indefintie in duration, it is valid for a reasonable time unless terminated by either party. (3) required that termination by one party be notified to the other party. Delivery dates for the Pilot Production Phase would be a reasonable time after completion of the Initial Testing Phase. Delivery dates for the Commercial Production Phase would be a reasonable time after completion of the Pilot Production Phase. No termination notice was received by Plaintiffs and on information and belief none was sent by MDC.

12. 400.1-203 provides for an obligation of good faith to the parties to the contract. This "good faith" obligation was breached by MDC in failing to notify Plaintiff Deichamm of MDC's intent to file a patent application, and failing to notify Plaintiffs of any termination of the Nozzle Prototype Production contract.

13. 400.2-306 provides for contracts for the requirements of the buyer, even if the amount of the requirements is unknown. Thus the nozzle requirments of the Pilot Production and Commercial Production Phases was covered by the UCC, and both were breached by MDC in failing to allow Plaintiffs to supply them.

14. Thus under the UCC and RSMo. 400.2-204 et seq a vaild and encorceable contract was entered into between the parties, which MDC breached.

15. Plaintiffs obtaining a Technical Expert and a Legal Expert and had them render opinions on the subject matter of Count I-III of the Third Amended Complaint, Exs. E & F are believed to constitute transactions and occurrences since the filing of the Third Amended Complaint, which warrant granting leave to file the First Supplemental Complaint under Rule 15(d). See Security Ins.

Co. v. United States For The Use of Haydis 338 F.2d. 444, 445-46 (9th Cir. 1964).

16. Defendant will not be prejudiced by the filing of this First Supplemental Complaint because the case is not set for trial until Apr. 4, 1999 of next year, more than five months from the present time.

17. If the court denies this Request, Plaintiffs hereby dismiss Count II without prejudice to its being refiled under Rule 41(a), since no Motion for Summary Judgment or Answer has been filed by Defendant as to Count II. See Davis V. McLaughlin 326 F. 2d 881 (9th Cir. 1964).

Respectfully submitted,

/s/ Henry W. Cummings
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Attorney for Plaintiffs

[Certificate Of Service Omitted In Printing]

APPENDIX M

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Case No. 4:97 CV 01913 SNL

RONALD S. DEICHMANN and
USHER'S WATERWORKS, INC.

Plaintiffs,

v.

THE BOEING COMPANY,

Defendant.

DEFENDANT THE BOEING COMPANY'S ANSWER TO COUNTS I AND II OF PLAINTIFFS' THIRD AMENDED COMPLAINT

COMES NOW defendant The Boeing Company ("Boeing"), by and through its counsel, and hereby files its answer to Counts I and III of plaintiffs Ronald S. Deichmann and Usher's WaterWorks, Incorporated's, (hereinafter collectively "Usher") "Third Amended Complaint for Breach of Confidentiality Contract, Breach of Prototype Construction Contract, and Correction of Inventorship Under 35 USC 256, or Declaratory Judgment Under 28 USC 2201 and 28 USC 2202" ("Third Amended Complaint") as follows:

ANSWER

I. Introduction

Boeing states that the Third Amended Complaint speaks for itself and, accordingly, denies each and every allegation set forth in the "Introduction" paragraph of Usher's Third Amended Complaint.

II. The Parties

Boeing admits that it is a corporation having its principal place of business in or near Seattle, Washington, and that it has an office at or about Airport Road and McDonnell Blvd., St. Louis, Missouri 63146, and that it is the sole shareholder of McDonnell Douglas Corporation, a Maryland corporation having an address of P.O. Box 516, St. Louis, Missouri 63166. Except as expressly admitted, Boeing is without sufficient information or knowledge to admit or deny the remaining allegations set forth within Section II of Usher's Third Amended Complaint entitled "The Parties" and therefore denies each and every other allegation set forth therein.

III. Jurisdiction

Boeing denies each and every allegation set forth within Section III (the "Jurisdiction" section) of Usher's Third Amended Complaint.

IV. Factual Allegations

1. Boeing admits that in or about 1989, McDonnell Douglas Corporation ("MDC") contacted Usher to investigate the possibility as to whether Usher could produce a certain type of nozzle in accordance with certain MDC specifications. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 1 of Usher's Third Amended Complaint.

2. Boeing admits that MDC signed a Non-Disclosure Agreement with Usher on or about July 10, 1989. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 2 of Usher's Third Amended Complaint.

3. Boeing admits that on or about July 10, 1989, MDC signed a Non-Disclosure Agreement with Usher, which was executed on behalf of MDC by Ms. B.J. Whiting. Boeing states that it is without sufficient knowledge or information to admit or deny the remaining allegations contained in paragraph 3 of Usher's Third Amended Complaint and, therefore, denies each and every other allegation set forth in paragraph 3 of Usher's Third Amended Complaint.

4. Boeing states that the terms and provisions of the Non-Disclosure Agreement speak for themselves and, therefore, denies each and every allegation set forth in paragraph 4 of Usher's Third Amended Complaint.

5. Boeing admits that Exhibit D of the Third Amended Complaint appears to be a photocopy depicting a number of business cards of MDC employees. Boeing states that it is unable to respond to the remaining allegations contained in paragraph 5 of the Third Amended Complaint in that Usher has failed to identify; (i) any "confidential information" that was allegedly disclosed to MDC personnel; (ii) the years, dates and/or times of any such alleged meetings; or (iii) the basis of its "information and belief" that such "confidential information" was disclosed to MDC. Therefore, except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 5 of Usher's Third Amended Complaint.

6. Boeing admits that on or about October 30, 1989, MDC forwarded a letter to Usher regarding a Request for Quotation relating to the possible manufacture of a prototype ultrasonic nozzle. Further answering, Boeing states that the provisions of such letter speak for themselves. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 6 of Usher's Third Amended Complaint.

7. Boeing admits that on or about January 29, 1990, MDC received a letter from Ronald S. Deichmann of Usher relating to Usher's proposal to produce a prototype ultrasonic nozzle for MDC. Further answering, Boeing states that the provisions and attachments of such letter speak for themselves. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 7 of Usher's Third Amended Complaint.

8. Boeing admits that on or about February 28, 1990, MDC issued Purchase Order No. V00344 to Usher, which was amended from time to time. Further answering, Boeing states that the terms and provisions of such purchase order and amendments thereto speak for themselves. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 8 of Usher's Third Amended Complaint.

9. Boeing states that it without sufficient knowledge or information to determine what Ronald Deichmann allegedly recalls and, accordingly, Boeing denies each and every allegation set forth in paragraph 6 of Usher's Third Amended Complaint. Boeing further denies that Mr. Deichmann was the first to conceive, construct or disclose the concept of introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then allow the water to exit from the chamber through a knife-edged

orifice in which the angle of the orifice is approximately 30 degrees.

10. Boeing denies each and every allegation set forth in paragraph 10 of Usher's Third Amended Complaint. Boeing specifically denies that Ronald Deichmann is a co-inventor of U.S. Patent No. 5,431,342 (the "'342 Patent").

11. Boeing admits that MDC met with plaintiff Usher's employees on a few occasions in or about 1989-90, but does not presently have sufficient information or knowledge to identify the specific number of meetings that occurred. Boeing denies each and every other allegation set forth in paragraph 11 of Usher's Third Amended Complaint.

12. Boeing admits that MDC did not contact Usher (as it had no duty to) prior to submitting the patent application, which was assigned application Serial No. 980,344, that eventually matured into the '342 Patent to the U.S. Patent and Trademark Office. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 12 of Usher's Third Amended Complaint.

13. Boeing admits that MDC did not contact Usher prior to submitting the application that eventually matured into the '342 Patent with the U.S. Patent and Trademark Office (as it had no duty to) and further states that Ronald Deichmann did not make any inventive contribution to the '342 Patent. Except as expressly admitted herein, Boeing denies each and every other allegation set forth in paragraph 13 of Usher's Third Amended Complaint.

14. Boeing denies each and every allegation set forth in paragraph 14 of Usher's Third Amended Complaint.

15. Boeing denies each and every allegation set forth in paragraph 15 of Usher's Third Amended Complaint.

16. Boeing denies each and every allegation set forth in paragraph 16 of Usher's Third Amended Complaint.

17. Boeing denies each and every allegation set forth in paragraph 17 of Usher's Third Amended Complaint. Boeing further states that Exhibit A to Usher's Third Amended Complaint speaks for itself.

18. Boeing denies each and every allegation set forth in paragraph 18 of Usher's Third Amended Complaint.

19. Boeing states that paragraph 19 of plaintiff Usher's Third Amended Complaint is wholly flawed and misleading in that it is based upon the false assumption and/or allegation that plaintiff's personnel made some inventive contribution to the invention claimed in the '342 Patent and, accordingly, paragraph 19 of plaintiff's Third Amended Complaint should be stricken. Boeing expressly denies that plaintiff and/or any of plaintiff's personnel made any contribution to the invention claimed in the '342 patent. Except as expressly admitted herein, Boeing denies each and every allegation set forth in paragraph 19 of Usher's Third Amended Complaint.

20. Boeing denies each and every allegation set forth in paragraph 20 of Usher's Third Amended Complaint.

21. Boeing denies each and every allegation set forth in paragraph 21 of Usher's Third Amended Complaint.

Count I - Breach of Contract to Not Disclose Confidential Information to Third Parties and for Unauthorized Use of Confidential Information

1. Boeing denies each and every allegation set forth in paragraph 1 of Count I of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

2. Boeing denies each and every allegation set forth in paragraph 2 of Count I of Usher's Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

3. Boeing denies each and every allegation set forth in paragraph 3 of Count I of Usher's Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

4. Boeing denies each and every allegation set forth in paragraph 4 of Count I of Usher's Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

5. Boeing denies each and every allegation set forth in paragraph 5 of Count I of Usher's Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

6. Boeing admits that plaintiff requested a jury trial in Count I. Except as expressly admitted herein, Boeing denies each and every allegation set forth in paragraph 6 of Count I of Usher's Third Amended Complaint.

Count III - Claim for Correction of Inventorship Under 35 USC 256

1. Boeing denies each and every allegation set forth in paragraph 1 of Count III of the Third Amended Complaint.

2. Boeing incorporates by reference its answers to paragraphs 1 through 21 to Section IV entitled "Factual Allegations in Plaintiff's Third Amended Complaint" heretofore as if fully rewritten herein.

3. Boeing admits that plaintiffs requested judgment but expressly denies that any such judgment should be entered and further denies each and every allegation set forth in paragraph 3 of Count III of the Third Amended Complaint.

4. Boeing denies each and every allegation set forth in paragraph 4 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

5. Boeing denies each and every allegation set forth in paragraph 5 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

6. Boeing denies each and every allegation set forth in paragraph 6 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

7. Boeing denies each and every allegation set forth in paragraph 7 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

8. Boeing denies each and every allegation set forth in paragraph 8 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

9. Boeing denies each and every allegation set forth in paragraph 9 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

10. Boeing denies each and every allegation set forth in paragraph 10 of Count III of the Third Amended Complaint and further states that no relief and/or damages are proper, due or available to Usher.

* * *

Further answering, Boeing denies each and every allegation set forth in Usher's Third Amended Complaint that is not specifically admitted herein. Additionally, in view of defendant Boeing's pending "Motion to Dismiss Counts II and IV of Plaintiffs' Third Amended Complaint," Boeing states it is not required and has no present duty to answer and/or otherwise respond to Counts II and IV of Usher's Third Amended Complaint.

AFFIRMATIVE DEFENSES

COMES NOW defendant The Boeing Company and for its affirmative defenses to Counts I and III of plaintiffs' Third Amended Complaint states as follows:

1. Boeing asserts that Counts I and III each fail to state a claim upon which relief may be granted.

2. Boeing asserts that Usher's claims for relief relating to Count I are barred under the applicable statute of frauds.

3. Boeing asserts that Usher's claims for relief relating to Counts I and III are barred under the doctrines of waiver, laches, acquiescence, and/or estoppel because, among other things, Usher's claims allegedly accrued, if at all, as early as 1992, yet it knowingly and intentionally waited until 1997 to file a lawsuit on such claims.

4. Boeing asserts that Usher's claims for relief relating to Counts I and III are barred by the doctrines of accord and satisfaction because the parties executed a

written agreement concerning the subject matter of Count I and Boeing has fulfilled any and all of its obligations under such agreement.

5. Boeing asserts that Usher's claims for relief relating to Count I are barred for want of consideration.

6. Boeing asserts that Count I is barred and/or fails to state a claim upon which relief may be granted as plaintiffs admit that Boeing is, at a minimum, a co-owner of any and all alleged Usher's confidential information.

7. Boeing asserts that Usher's claim for punitive damages, if granted, would be grossly excessive and would violate the Due Process clause of the Fourteenth Amendment to the U.S. Constitution. Boeing has not received fair notice that it could be subject to substantial punitive damages in this state for the conduct alleged. Boeing's conduct was not deliberate, and the alleged damages, if any, to Usher were economic. The punitive damages sought by Usher are greatly disproportionate to any actual damages and far exceed any civil or criminal sanctions that could be imposed for similar alleged misconduct.

8. Boeing asserts that Usher's claim for punitive damages would violate the Eighth Amendment to the U.S. Constitution and Article I, §§ 10 and 21, of the Missouri Constitution because it seeks to impose an excessive fine upon Boeing, is penal in nature, and seeks to punish Boeing upon vague standards.

9. Boeing asserts that Usher's claim for punitive damages would violate the Equal Protection clause to the Fourteenth Amendment to the U.S. Constitution and Article I, § 2 of the Missouri Constitution because it discriminates against persons subjected to punitive damages.

10. Boeing asserts that Usher's claim for punitive damages violates the Due Process clause of the Fifth and Fourteenth Amendments to the U.S. Constitution because it seeks to punish Boeing based upon unconstitutionally vague standards.

11. Boeing asserts that Usher's claim for punitive damages would violate the Fifth Amendment to the U.S. Constitution and Article I, § 19 of the Missouri Constitution because it would expose Boeing to multiple punishments and fines for the same conduct.

12. Boeing asserts that Usher's claim for punitive damages violates the Due Process clause of the Fifth and Fourteenth Amendments to the United States Constitution in the absence of an order bifurcating that claim from the issue of liability.

13. Boeing asserts that any award of punitive damages in this case would violate the Separation of Powers Doctrine since this Court and the jury would be usurping the exclusive power of the legislature to define crimes and establish punishment.

14. Boeing asserts that any award of punitive damages in this case would be constitutionally defective as an *ex post facto* l

an *ex post facto* law prohibited by the Missouri and United States Constitutions. The jury, in making any such punitive award, would be effectively criminalizing conduct after it has occurred and without appropriate advance notice to a Boeing that such conduct may subject it to criminal punishment.

15. Boeing asserts that the punitive damages sought by Usher would violate the Due Process clause of the Fifth and Fourteenth Amendments to the U.S. Consti-

tution because Usher seeks to punish Boeing *in Missouri* for conduct that occurred elsewhere.

WHEREFORE, having fully answered Counts I and III of plaintiffs' Third Amended Complaint, Boeing prays for judgment in its favor as a matter of law, and that the court award its costs incurred herein, and such other and further relief as this court deems just and proper under the circumstances.

Respectfully submitted,

BRYAN CAVE LLP

By: /s/ Daniel A. Crowe
David A. Roodman, E.D. Mo. #5116
Robert G. Lancaster, E.D. Mo. #3634
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One Metropolitan Square
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ATTORNEYS FOR DEFENDANT
THE BOEING COMPANY

[Certificate Of Service Omitted In Printing]

APPENDIX N

HENRY W. CUMMINGS
Attorney At Law
3313 W. Adams Street • St. Charles, Missouri 63301
(314) 949-9408

April 5, 1997

Ms. Debra Morgan
Intellectual Property Counsel
McDonnell Douglas Law Department
P.O. Box 516
St. Louis, MO 63166-0156

Dear Debra:

After a search, of prior records my clients have uncovered a non-disclosure agreement between McDonnell Douglas and Usher's Water Works, a predecesor of Water Works, dated September 10th, 1989, to last for a period of 5 years,Par. 8, wherein McDonnell Douglas agrees to maintain confidential and not disclose the third parties, Par. 4, the coherent flow nozzles or laminar flow nozzles identified as hardware in Par. 1 of the agreement.

In disclosing this subject matter to the U.S. Patent and Trademark Office without the consent of Usher's Water Works, MDC breeched this confidentiality agreement.

In applying for a patent on the subject matter disclosed to MDC, MDC breached Par. 6 of the agreement.

As mentioned previously, in failing to name Ron Diekman and/or other Water Works personnel in the patent application, MDC failed to properly identify the inventors of U.S. Patent 5,431, 342, and in so doing perpetrated a fraud on the U.S. Patent and Trademark Office.

I must advise you, Debra, that this is McDonnell Douglas's last opportunity to resolve this matter without litigation.

We need to hear from you promptly, within one month of this letter, with a compensation proposal and opportunity to meet with appropriate McDonnell Douglas personnel.

Otherwise, we will have no choice but to instigate litigation concerning this matter.

Sincerely,

/s/ Henry W. Cummings
Henry W. Cummings
Attorney for Water Works
HWC:js

APPENDIX O

McDonnell Douglas

McDonell Douglas Aerospace

[LOGO]

April 25, 1997

CERTIFIED MAIL/RETURN RECEIPT

Mr. Henry Cummings
3313 W. Adams Street
Saint Charles, Missouri 63301

Dear Mr. Cummings:

This letter is in response to your letter dated April 5, 1997 concerning Water Works' claim of McDonnell Douglas Corporation's (MDC's) alleged breach of a confidentiality agreement executed in 1989. Water Works claims MDC breached the agreement when MDC submitted a patent application to the U.S. Patent and Trademark Office which ultimately issued as U.S. Patent 5,431,342 entitled, "Nozzle Providing a Laminar Exhaust Stream." Your letter also accuses MDC of perpetrating a fraud on the U.S. Patent and Trademark Office (PTO) by failing to name Water Works personnel as coinventors in the application.

MDC has neither breached the confidentiality agreement nor perpetrated a fraud on the PTO. MDC did not include any Water Works information in the patent application; all claims within the application included technology conceived by MDC inventors. Any nozzle versions presented to MDC by Water Works failed any merit of functionality, evidenced by MDC's early termination of the contract between Water Works and MDC. Also, a porous wall

P.O. Box 516, Saint Louis, MO 63166-0516
(314) 232-0232 TELEX 44-857

and a knife edge orifice are items well known in the prior art. MDC's nozzle assembly includes an annular passageway and a plenum chamber fluidly communicating in a radial direction. This radial fluid communication provides a non-obvious improvement over other nozzles adapted to receive an ultrasonic transducer.

To this date, Water Works has failed to submit any evidence indicating ownership of the radial fluid communication. MDC retains recorded, witnessed data which proves MDC employees are the sole inventors of the technology. Since Water Works has not submitted any evidence indicating ownership of the radial fluid communication, a meeting with McDonnell Douglas inventors is unwarranted.

In conclusion, the patent application includes technology developed only by MDC employees and thus, MDC has neither breached the confidentiality agreement nor perpetrated a fraud on the PTO. Unless you can provide us with additional information, MDC considers this matter closed.

Sincerely

/s/ Deborah E. Morgan
Deborah E. Morgan
Counsel
Intellectual Property

APPENDIX P

IN THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MISSOURI

Cause No. 4:97 CV 01913 SNL

RONALD S. DEICHMANN and
USHER'S WATERWORKS, INC.

Plaintiffs

v.

THE BOEING COMPANY,

Defendant

DECLARATION OF RONALD S. DEICHMANN CONCERNING HIS CONTRIBUTION TO U.S. PATENT No. 5,431,342

BEING DULY SWORN, I, Ronald S. Deichmann, hereby state as follows:

I am co-Plaintiff and part owner of Usher's Waterworks Inc. doing business at 1136 Washington, St. Louis, Missouri 63101.

2. During 1989 I was contacted by personnel of McDonnell Douglas Corporation (MDC) concerning the production of a laminar flow nozzle.

3. I responded to this request for information concerning a laminar flow nozzle by requesting MDC execute the attached confidentiality agreement identified herein as Exhibit A.

4. This agreement was executed by Mr. David Usher of Usher's Waterworks Inc. and by Mr. B.J. Whiting of MDC.

5. After this agreement was executed, I visited MDC and talked to Mr. Rich Lawson of MDC and also Mr. Marvin Burr and Mr. Mark D. Leech of MDC.

6. I disclosed to them a method and apparatus for making a laminar flow nozzle involving a plenum chamber having a porous wall and fluid entering the plenum chamber being required to pass through the porous wall and then through a knife-edge orifice having an expanding angle of approximately 30 degrees.

7. This construction had resulted in the production of a laminar flow in many prior applications of Usher's Waterworks. Plaintiff regularly uses on a commercial basis some of the elements, the porous wall and the knife edge orifice called for in the '342 patent for creating laminar flow streams in a number of applications in the United States and abroad.

8. Reference to U.S. Patent No. 5,431,342 reveals that the porous wall is indicated at (15) and the radial entry is indicated at (19). The expanding knife-edge orifice is indicated at (25).

9. It is noted that all of claims require the porous wall and the radial entry of fluid into the plenum chamber through the porous wall (Claim 1). The expanding knife-edge orifice is called for, for example, in Claims 8 and 9.

10. The personnel at MDC knew, or should have known, that I, Ronald S. Deichmann was the supplier of this inventive contribution to MDC and that I should have been named as an inventor of Application Serial No. 900,344 filed November 23, 1992, during the period of confidentiality and Application Serial No. 164,662 filed

December 8, 1993, also filed within the five year period of confidentiality.

11. Exhibit A is a copy of a letter sent to Ms. Deborah Morgan dated April 5, 1997 attaching the confidentiality agreement which MDC breached as alleged in Count I and further on page 2 contains the clear allegation that MDC failed to properly identify the inventors of U.S. Patent No. 5,431, 342 and in so doing perpetrated a fraud on the U.S. Patent and Trademark Office.

12. Exhibit B is a response from Ms. Deborah Morgan flatly denying that any inventive contribution was made by Waterworks and that the entire invention was that of MDC.

13. The absolute refusal of MDC through Ms. Deborah Morgan, Intellectual Property Counsel, to agree to name ronald S. Deichmann establishes that there is a clear controversy between the parties concerning the inventor ship of U.S. Patent No. 5,431,342.

14. I make the foregoing statements with knowledge that willful false statements are punishable under exisitng State and Federal perjury statutes.

Respectfully submitted,

/s/ Ronald S. Deichmann
Ronald S. Deichmann
Usher's WaterWorks
1136 Washington
St. Louis, Missouri 63101

Feb. 25 1998

APPENDIX Q

[Filed May 8 1998]

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Cause No. 4:97CV01913SNL

Usher's WaterWorks, Incorporated

v.

Boeing Company having an office in Missouri
at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146,
formally McDonell Douglas Corporation

PLAINTIFFS MOTION TO FILE
THIRD AMENDED COMPLAINT UNDER SEAL

1. The attached third amended complaint is based upon information and received by plaintiffs as a result of Defendant's response to Plaintiffs' Request for Production of Documents. Since Plaintiffs did not previously possess the documents it was not possible for Plaintiffs to previously include the allegations contained in this Third Amended Complaint.

2. The documents contain language which establishes that a Prototype Construction contract, separate from the Confidentiality Agreement contained in the Second Amended Complaint, was also entered into between Plaintiffs and Defendant's predecessor.

3. The language contained in the documents marked Confidential establish that the Prototype Construction

Contract provided that all of the information developed in the Phase I Development Program would be considered as to be jointly owned for use in ultrasonic testing applications. And that prior to the beginning of Phase II, MDC and Plaintiff Usher would determine any licensing agreements for marketing nozzles to other companies.

4. The third amended complaint contains allegations that MDC breached the prototype construction contract by disclosing information developed in the Phase 1 Development program to the U.S. Patent and Trademark office, and to purchasers, licensees and leases of ultrasonic testing without consulting or gaining Co-Owner Plaintiffs' consent.

5. The third amended complaint also contains allegations that MDC failed to name Co-Owner Usher's Officer Ronald S. Diechmann as co-inventor of the patent applications leading to U.S. patent 5,431,342.

6. The third of amended complaint also alleges that since the information developed in the Phase 1 Development program co-owned, MDC breached this contract by utilizing this information in proceeding with Phase II Pilot Production and Phase III Commercial Production in ultrasonic testing at MDC and at MDC and Boeing's purchaser's, leases, and/or licensees without advising or attempting to compensate plaintiffs for the use of the Ushers Confidential information supplied to MDC in the Phase 1 Development program.

7. Defendant will not be prejudiced by the filing of this third amended complaint because the case is not set for trial until Jan.19 of next year, more than six months from the present time.

For these reasons leave to file the attached Third Amended Complaint Under Seal is respectfully requested.

Respectfully submitted,

/s/ Henry W. Cummings
Henry W. Cummings
Attorneys for Plaintiffs
3313 West Adams Street
St. Charles Mo. 63301
314-949-9408

[Certificate Of Service Omitted In Printing]

APPENDIX R

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Cause No. 4:97CV01913SNL

Ronald S. Deichmann, and
Usher's WaterWorks, Incorporated

v.

Boeing Company having an office in Missouri
at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146,
formally McDonnell Douglas Corporation

Jury Trial Demand

FILED UNDER SEAL

THIRD AMENDED COMPLAINT FOR BREECH OF CONFIDENITALITY CONTRACT; BREACH OF PROTOTYPE CONSTRUCTION CONTRACT AND CORRECTION OF INVENTORSHIP UNDER 35 USC 256, OR DECLARATORY JUDGMENT UNDER 28 USC 2201 AND 28 USC 2202

I. INTRODUCTION

This is a complaint for compensatory damages for breech of contract by Defendant and predecessor McDonnell Douglas Corp.(MDC) of the terms of a Confidential agreement; breach of the terms of a separate Prototype Construction contract; for compen-

satory damages for failure to compensate Plaintiffs for the breach of the confidentiality contract and the Prototype construction contract up to the present time; for a reasonable royalty for the future use, sale and lease of the confidential information and prototype design; for punitive damages for the willful violation by MDC of the terms of the Confidential agreement and the terms of the Prototype Construction Contract; for Correction of Inventorship under 35 USC 256 of U.S. Patent 5,431,342 (Exhibit A) for the error, without deceptive intent, of MDC for failure to name Plaintiff Ronald S. Deichmann as co-inventor of the patent, and Plaintiff Ushers' WaterWorks as part owner of the Patent; or in the alternative for a Declaratory Judgment of Patent Invalidity under 28 USC 2201 and 28 USC 2202, and for compensatory damages for failure to compensate Plaintiffs for the inventive contribution to U.S. Patent 5,431,342.

II. THE PARTIES

Plaintiff Usher's WaterWorks, Incorporated, is a Missouri corporation doing business at 1136 Washington in St. Louis, Missouri 63101.

Plaintiff Ronald S. Deichmann is an indivigual residing at 6040 Circle Drive, House Springs Mo., 63119, and is President and a part owner of Plaintiff Ushers' Water-Works.

Defendant Boeing Company is a corporation located in Seattle Washington, doing business in St. Louis, Missouri as Boeing Company, having an office at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146, on information and belief, has taken over the assets and liabilities of MDC, having an address of P.O. Box 516 St. Louis, Missouri 63166.

III. JURISDICTION

This Court has jurisdiction of this case because a federal question is involved under 28 USC 1331; 28 USC 1338, 28 USC 2201 and 28 USC 2202 and 35 USC 256, since there is diversity of citizenship and the amount in controversey exceeds $75,000 under 28 USC 1332, and the case involves a request for Correction of Inventorship of a U.S. Patent under 35 USC 256, or in the alternative a Declaratory Judgment of Patent Invalidity under 28 USC 2201 and 28 USC 2202. Venue is proper in the Eastern District of Missouri because both the plaintiffs and the defendant have offices in the Eastern District of Missouri.

IV. FACTUAL ALLEGATIONS

1. Sometime during the calendar year 1989, the specific date uncertain, Defendant's Predecessor, McDonnell Douglas Corporation (MDC) contacted Plaintiff Usher's WaterWorks, Incorporated and requested information concerning Plaintiff Usher's WaterWorks laminar flow nozzle apparatus.

2. Plaintiff's personnel agreed to meet with MDC personnel, but required as a condition of the meetings that MDC enter into a confidential agreement concerning disclosure of information by Plaintiff Usher's WaterWorks to MDC.

3. On or about August 10th, 1989 a confidential agreement was entered into between Plaintiff and MDC. It was executed by Mr. B.J. Whiting of MDC and Mr. David Usher of Plaintiff Usher's WaterWorks (Exhibit B).

4. This agreement provided that Plaintiff Usher's WaterWorks would disclose confidential and proprietary information to MDC on the condition that MDC (recipi-

ent) agreed not to disclose the Information to third parties and not to engage in any communication with third parties regarding the confidential information without prior written consent of Plaintiff Usher's WaterWorks, Par. 3 and 4.

5. On information and belief, this confidential information was disclosed to specific MDC personnel including Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems. Ex. D. is a photocopy of the their business cards given to Plaintiff Deichmann at one or more of the meetings.

6. On or about Oct. 30, 1989 MDC issued Request for Quotation #DLF1089-02, to Dave Usher then President of Usher's Waterworks, attached Ex.E. On page 2, the following language appears "2. Please note: All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

7. On Jan 29, 1990 Plaintiff Ronald S. Deichmann, then Vice President and General Manager of Usher's Waterworks wrote to Rich Lawson, then Unit chief-Automated Systems of MDC, Ex. F, attaching two Proposed changes as SPECIAL TERMS AND CONDITIONS as an Attachment to MDC Form MDC 858 entitled SPECIALTY NOZZLE PURCHASE AGREEMENT to the Request for Quotation Ex. E, the first to Pars 1.1 to 1.1.7 and the second to Pars 1.1.8 and 1.1.9., attached as Exs. G. and H respectively. Each contained the same language as the Request for quote in respective Pars 12.01 concerning join ownership of Phase I Developments.

8. On or about Feb. 28, 1990 MDC issued Purchase Order No. V00344 to Usher's Waterworks Ex. I, which incorporated MDC 858 and MDC Form 858 by reference into the Purchase Order on page 8. While three (3) change Orders were made to the Purchase Order V00344 on respectively March 14, 1990,Aug. 13, 1990 and Sept. 4, 1990, none of these change Orders changed the the language provided in the the MDC request for Quote "All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

9. In accordance with Phase I of the Prototype Construction contract, Plaintiff Ronald S. Deichmann specifically recalls first conceiving, then constructing and disclosing to MDC personnel the concept of introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from the chamber through a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees, hereinafter Usher's Confidential Information. Attached Ex. C illustrates in part this construction.

10. This Usher's Confiential Information including at least one prototype was disclosied to one or more of the individuals Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems. This subject matter is contained in at least claims 8-13, 21-23, 27, 29, and 32 of US Patent 5,431,342, and therefore he is at least a co-inventor of the patent.

11. There were approximately four meetings between MDC personnel and Plaintiff Ronald S. Deichmann during 1989 and 1991.

12. Furthermore, prior to submitting the patent application Ser. No. 980,344 to the U.S. Patent and Trademark Office on or about Nov. 23, 1992,342 within the five year term of the Confidentiality Agreement (Exhibit B, Par. 8), and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent5,431,342 (Exhibit B, Par. 8), MDC breached the Confidentiality Agrrement by making no effort to contact Plaintiff Ushers' WaterWorks as required by the agreement and obtain consent to disclose the confidential information to the U.S. Patent and Trademark Office and the Examiners therein as required by the agreement (Exhibit B-Par. 4).

13. In addition, prior to filing of the 980,344 application, there was no written or oral communication between MDC and Plaintiffs concerning whether or not Plaintiff Ronald S. Deichmann had made an inventive contribution to the invention and should have been included in the application.

14. In accordance with the Prototype Construction Contract, a Development Program was introduced at MDC to take the prototypes and Usher's confidential information received from Plaintiffs and utilize it to form a laminar flow system to be utilized in ultrasonic testing of MDC aircraft parts. In the Development Program the Usher's Confidential Information was added to and merged with MDC ultrasonic testing information and data to form Phase I Confidential Information.

15. MDC breached it's Prototype Construction contract with Plaintiffs Usher's WaterWorks that "all phase

I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications and prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies." because this Phase I confidential subject matter was placed in the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent5,431,342, by MDC without discussing with and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the confidential Phase I Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

16. On information and belief MDC (MCAIR) further breached the Prototype Construction Contract by entering into a Phase II Pilot Program and then Phase III Commercial Production without notifying Usher's or Ronald S. Diechmann, and without enetering into any discussions with Usher to "determine any licensing agreements for marketing nozzles to other companies", before disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic testing equipment.

17. After the third change Order was issued by MDC to Purchase Order V00344 on or aboiut Sept. 4, 1990, nothing further was heard from MDC concerning the Development Program until U.S. Patent 5,431,342 (Exhibit A) was issued to MDC personnel. Consideration of Exhibit A reveals that Plaintiff Ronald S. Dieckmann was not included as an inventor of the patent.

18. In failing to name Ronald S. Deickmann as a coinventor of Application Ser. No. 980,344 filed Nov.23,

1992, and Application Ser. No. 164,662 filed Dec. 8, 1993, MDC, through error and without deceptive intent, misrepresented the inventorship of the applications.

19. Furthermore, there was no offer of MDC to Plaintiffs for compensation for the contribution made to the concept by Ronald S. Deichmann which was agreed to be "co-owned" in the Prototype Construction Agreement between MDC and Usher's.

20. On information and belief, MDC breached the Prototype construction contract by proceeding with Phase II Pilot Production and Phase II Commercial Production without allowing Plaintiffs to supply the nozzles, and MDC and Defendant Boeing are utilizing Usher's Confidential Information and Phase I Confidential information to ultrasonically test aircraft parts and other parts, and to sell and lease ultrasonic machines containing Usher's Confidential Information and Phase I Confidential Information to MDC customers and Boeing customers to ultrasonically test aircraft parts.

21. Diligent efforts to resolve this matter amicably without litigation were attempted by Plaintiffs with letters and over the telephone, since Oct.1966. But these efforts were unsuccessful, necessitating the filing of this law suit.

COUNT I BREACH OF CONTRACT TO NOT DISCLOSE CONFIDENTIAL INFORMATION TO THIRD PARTIES AND FOR UNAUTHORIZED USE OF CONFIDENTIAL INFORMATION

It is urged that this Court declare:

1. That MDC breached it's contract with Plaintiff Usher's WaterWorks by disclosing Usher's Confidential

Information received by MDC from Plaintiffs including at least in part the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, without obtaining the written approval of Plaintiff Usher's WaterWorks to submit the information to a third party, the U.S. Patent and Trademark Office and its Examiners, and on information and belief disclosing said Usher's Confidential Information to Defendant and to MDC's and Boeing's customers including, but not limited to, purchasers, licencees, and leasees of ultrasonic equipment for testing aircraft and other parts.

2. Order an accounting of any and all machines built by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs; any and all macines sold, licensed or leased by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs.

3. Award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, licensses and other customers of ultrasonic testing of aircraft and other parts up to and including the present time of the said Uhser's Confidential Information supplied to MDC by Plaintiffs.

4. Order punitive damages against Defendant because of MDC's wanton failure to comply with the terms of the confidential information agreement including failing to obtain prior permission from Plaintiff Usher's WaterWorks before disclosing Usher's Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Usher's Confidential Information to Boeing and customers of MDC and Boeing and for failing to compensate Plaintiffs for

their use of the said Usher's Confidential Information in ultrasonic testing of aircraft and other parts.

5. Order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Usher's Confidential Information.

5. Order such other and further relief as the Court may deem appropriate.

6. A jury trial is requested.

COUNT II BREACH OF PROTOTYPE CONSTRUCTION THAT ALL PHASE I DEVELOPMENT WILL BE CONSIDERED AS C0-OWNED BY MCAIR AND USHERS FOR USE IN ULTRASONIC INSPECTION APPLICATIONS

1. Paragraphs 1 through 21 of Plaintiffs' Factual Allegations are hereby incorporated herein by this reference as if fully set forth herein.

2. It is urged that this Court hold that MDC breached it's contract with Plaintiffs Usher's WaterWorks that "all phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies." The concepts of Usher's Confidential Information including introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees was Usher's Confiential Information which was disclosed orally and in in at least one prototype delivered to MDC by Uhser's by Ronald S. Deichmann. MDC

added additional Phase I confidential information, including, but not limited to, ultrasonic testing information and data. MDC breached the Prototype Construction contract because this Phase I confidential subject matter was placed in the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, and at least claims 8-13, 21-23, 27, 29, and 32 of US Patent 5,431,342, by MDC without discussing with and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the confidential Phase I Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

3. MDC (MCAIR) further breached the Prototype Construction Contract by entering into a Phase II Pilot Production Program and Phase III commercial Production without notifying Usher's or Ronald S. Deichmann, and without enetering into any discussions with Usher to supply the nozzles or "determine any licensing agreements for marketing nozzles to other companies", before discusing licensing arrangements with Usher's for marketing the nozzles to other companies, and disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic equipment for testing aircraft and other parts.

4. Order an accounting of any and all machines built by MDC and Defendant embodying the said Phase I Development Confidential Information, the Phase II Pilot Production, and Phase III Commercial Production, any and all machines sold, licensed or leased by MDC and Defendant embodying the said Phase I Development Confidential Information, the Phase II Pilot Production and Phase III Commercial Production.

5. Award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time of the said Phase I Development Confidential Information the Phase II Pilot Production and Phase III commercial Production.

6. Order punitive damages against Defendant because of MDC's wanton failure to comply with the terms of the Prototype Construction agreement including obtaining prior permission from Co-Owner Usher's WaterWorks before disclosing Phase I Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Phase I Confidential information to Boeing and customers of MDC and Boeing, before discussing and determining licensing agreements, for failing to include Plaintiffs in Phase II Pilot Production and Phase III Commercial Production and for failing to compensate Plaintiffs for their use of the said Phase I confidential information in ultrasonic testing of aircraft and other parts.

7. Order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Phase I confidential information, Phase II Pilot Ptoduction and Phase III Commercial Production.

8. Order such other and further relief as the Court may deem appropriate.

9. A jury trial is requested.

COUNT III CLAIM FOR CORRECTION OF INVENTORSHIP UNDER 35 USC 256

1. This is a claim for Correction of Inventorship under 35 USC 256 to add Mr. Ronald S. Deichmann as co-inventor of US Patent 5,431,342, and to name Plaintiff Usher's Water Works as part owner of the Patent. This Court has jurisdiction under the patent laws of the United States under 28 USC 1338 and 35 U.S.C. 256. Venue in this district is proper pursuant to 28 U.S.C. §. 1391 (b) and 1400 (b).

2. Plaintiff realleges and repeats Paragraphs 1 through 21 of Plaintiffs' Factual Allegations by this reference as if fully set forth herein.

3. WHEREFORE, Plaintiff hereby requests judgment as follows:

4. Declare that the inventorship of U.S. Patent 5,431, 342 is presently incorrect due to error, by MDC without deceptive intent, for failing to name Plaintiff Ronald S. Dieckmann as a co-inventor of the patent for his innovative contribution to the claimed subject matter in the patent.

5. Order that Plaintiff Ronald S. Dieckmann's name be added to U.S. Patent 5,431,342 as co-inventor of U.S. Patent 5,431,342.

6. Order that Usher's WaterWorks be named as co-owner of U.S. Patent 5,431,342.

7. Order and accounting of any and all machines built by MDC and Defendant embodying the specification and claims of US Patent 5,431,342; any and all machines sold or leased by MDC and Defendant embodying the specification and claims of US Patent 5,431,342.

8. Award compensatory damages to Plaintiffs for the use of the claimed patented concept by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time.

9. Order a reasonable royalty for future use, sale and lease of the patented concept by MDC and Boeing be payable to Plaintiff Usher's WaterWorks.

10. Order such other and further relief as the Court may deem appropriate.

COUNT IV ALTERNATIVE CLAIM FOR DECLARATORY JUDGMENT

1. This is an alternative claim for Declaratory Judgment until Title 28, United States Code, Sections 2201 and 2202, in respect of an actual controversy of which this Court has juridication under the patent laws of the United States (35 USC 100 et seq.) Venue in this disctrict is proper pursuant to 28 USC 1391 (b) and 1400 (b).

2. There is an actual controversy between Plaintiffs and Defendants in that, *inter alia,* Defendant has contended and continues to contend that it is ole owner of said Letters Patent and has the sole right to bring suits for infringement thereof, that said Letters Patent was duly and legally issued and is valid; whereas Plaintiff has and will continue to contend that said Letters Patent is invalid and void and unenforceable for failure to name Plaintiff's personnel as sole or co-inventor, and as such Plaintiff is sole or part owner of said Patent.

3. Plaintiffs reallege and repeat Paragraphs 1-21 of the foregoing FACTUAL ALLEGATIONS inclusive with the same force and effect as if were set forth herein,

except as to Paragraph No. 14, in failing to name Ronald S. Deichmann as inventor or co-inventor of Application Ser. No. 980,344 filed Nov.23,1992, and Application Ser. No. 164,662 filed Dec. 8, 1993 MDC knowingly and willfully misrepresented the inventorship of the application, a material fact, and thus perpetrated a fraud upon the U.S. Patent & Trademark Office.

WHEREFORE, Plaintiff hereby requests judgment as follows:

4. Declare that the inventorship of U.S. Patent 5,431, 342 is presently incorrect due to error, by MDC without deceptive intent, for failing to name Plaintiff Ronald S. Dieckmann as a co-inventor of the patent for his innovative contribution to the claimed subject matter in the patent.

5. Order that Plaintiff Ronald S. Dieckmann's name be added to U.S. Patent 5,431,342 as co-inventor of U.S. Patent 5,431,342.

6. Order that Usher's WaterWorks be named as part owner of U.S. Patent 5,431,342.

7. Order and accounting of any and all machines built by MDC and Defendant embodying the specification and claims of US Patent 5,431,342; any and all machines sold or leased by MDC and Defendant embodying the specification and claims of US Patent

8. Award compensatory damages to Plaintiffs for the use of the claimed patented concept by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time.

9. Order a reasonable royalty for future use, sale and lease of the patented concept by MDC and Boeing be payable to Plaintiff Usher's WaterWorks.

10. Order such other and further relief as the Court may deem appropriate.

Respectfully submitted,

/s/ Henry W. Cummings
Henry W. Cummings
Attorney for Plaintiff
3313 West Adams St.
St. Charles, MO 63301
(314) 949-9408

[Certificate Of Service Omitted In Printing]

APPENDIX S

REFERENCE TO LODGING

Appendix S, U.S. Patent No. 5,431,342 (10 pages), is filed separately with this Appendix as Lodging I.

APPENDIX T

Ex. B.
Enclosure (1) to MDC
Ltr UWW-018-6009
Page 1 of 3

NON DISCLOSURE AGREEMENT

RE: *Jumping Jet Fountains*

GENTLEMEN:

You have indicated that you would like to discuss and view the working mechanisms of an operational prototype of the coherent flow nozzle idea(s) developed by us as described in Section 1 contained herein. In consideration of our providing you with such information and access, and to set forth a clearer understanding of rights and obligations relating hereto, the undersigned hereby agrees as follows:

1. The hardware to be viewed is:

   1.01 "Coherent flow nozzles" or "laminar flow nozzles", identified descriptively as a specialized nozzle that exits an extremely coherent glass-like stream of water over distances of up to 16 feet, as designed and improved by Usher's Waterworks, a Missouri Corporation.

2. For purposes of this Agreement, the term "information" shall mean all information both written, oral, and as represented by viewing the external and internal mechanisms of the nozzle(s), which we deem to be confidential and proprietary, relating to the coherent flow nozzle (including, but not limited to mechanical operation, data, know-how,

technical and non-technical materials, parts, and specifications).

3. You, your subsidiaries and affiliates (collectively referred to as "Recipient") agree to maintain the Information in confidence. Recipient will not disclose the Information to any third party, nor will recipient use the Information for any purpose other than to evaluate Usher's nozzle for possible use by Recipient in its products. For purposes of this paragraph, subsidiaries and affiliate "shall mean any corporation, firm, partnership or other entity which directly or indirectly controls, is controlled by, or is under common control, with your company.

4. The Recipient agrees not to engage in any communication with any third parties regarding any said confidential Information without prior written consent of Usher's Waterworks.

5. The preceding obligations of the Recipient of non-disclosure and the limitations upon the right to use the Information shall not apply to the extent that Recipient can demonstrate that the Information is:

   (a) in the possession or control of recipient prior to the time of disclosure hereunder; or

   (b) at the time of disclosure or thereafter becomes public knowledge through no fault or omission of Recipient; or

   (c) lawfully obtained by Recipient from a third party under no obligation of confidentiality to us.

   (d) independently developed by recipient.

(e) disclosed inadvertently despite the exercise of the same degree of care as Recipient takes to preserve and safeguard its own MDC Sensitive proprietary information.

6. Subject to the provisions of Paragraph 2. hereof, all proprietary rights (including, but not limited to, patent rights and trade secrets) in and to the Information shall remain our property.

7. The Information is being disclosed to the Recipient pursuant to this Agreement with the express understanding that neither Usher's nor the Recipient will be obligated to enter into any further agreements relating to the idea, and nothing in this Agreement shall be construed as granting any license to Recipient relating thereto.

8. All obligations of Recipient under this Agreement shall terminate five years from the date of this Agreement.

9. This Agreement sets forth the entire Agreement and understanding among the parties as to the subject matter thereof, and none of the terms of this Agreement shall be amended or modified except in writing signed by the parties.

10. The construction, interpreation, and performance of this Agreement shall be governed by the domestic laws of the State of Missouri.

11. If the foregoing terms are acceptable to you, please signify the acceptance of your company by signing below.

Signatures

Usher's Waterworks, Inc.
1570 Fenpark Drive
Fenton, Missouri 63026

By: /s/ [Illegible] 8/10/1989
Title: President

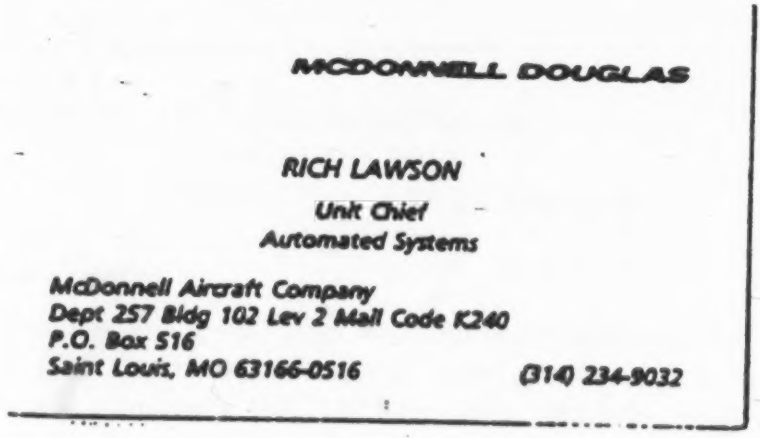
ACKNOWLEDGED AND AGREED (Recipient)

McDonnell Douglas Corporation (Company Name)
P.O. Box 516 (Address)
St. Louis, Missouri 63166 (City, State, Zip Code)

By: B.J. Whitling
Title:
Date: 10 July 1989

APPENDIX U

BUSINESS CARDS OF MDC PERSONNEL



BEST AVAILABLE COPY

MCDONNELL DOUGLAS

MARK D. LEACH

Engineer
Automated Systems

McDonnell Aircraft Company
Dept 257 Bldg 102 Level 2 K240
P.O. Box 516
Saint Louis, MO 63166-0516 (314) 234-9031

APPENDIX V

Ex. E.

MCDONNELL DOUGLAS

McDonnell Aircraft Company

30 October 1989
DLF1089-02

[CONFIDENTIAL]

Usher's Waterworks
1570 Fenpark
Fenton, MO 63026

Attention: Dave Usher, President

Subject: Request for Quotation

Enclosure: (1) Nozzle Specifications
(2) MAC Form 2014
(3) MDC Form 858 (as applicable)

Dear Dave:

1. Enclosed you will find updated specifications, Enclosure (1), for the final nozzle configuration McDonnell Aircraft Company (MCAIR) requires. As previously discussed, we would like this development to be a phased approach with each phase being quoted separately as we proceed through the development process. A detailed breakdown of the entire development process follows:

1.1 Phase I – Design, build, install and test two (2) prototype ultrasonic nozzles to meet the enclosed specs. The development of the prototype may be a

multi-step process in order to improve stream quality to the best practical. As such, the anticipated Phase I Process is as follows:

1.1.1 Design and build first basic nozzle and rotating water inlet.

a. For the prototypes, MCAIR will furnish the ultrasonic transducer adapter and connection. Usher will provide all water connections and attachment hardware to mate the nozzle to the current AUSS29A-06 Pitch Assembly. The Attachment Pattern required is also required.

b. Each nozzle will be supplied with removable, interchangeable exit diameters of 3/16, 1/4 and 3/8 inch.

1.1.2 Test at MCAIR Bldg 29A) in a production environment.

1.1.3 Discuss any improvement (air chambers, accumulators, etc.).

1.1.4 Trial usage at MCAIR.

1.1.5 MCAIR approval of any additional development.

1.1.6 Design improvements/additions.

1.1.7 Text at MCAIR.

1.1.8 Build second nozzle.

1.1.9 Trial production usage at MCAIR for two (2) weeks.

1.2 Phase II – Pilot Production

1.2.1 Design enhancements/final design (materials, manufacturability, anticipating recurring cost, etc.).

1.2.1 Design enhancements/final design (materials, manufacturability, anticipated recurring cost, etc.).

1.2.2 Final Design Review.

1.2.3 MCAIR Approval.

1.2.4 Build two (2) pilot nozzle assemblies.

1.2.5 Test at MCAIR versus specifications.

1.2.6 Build six (6) additional assemblies.

1.2.7 Test at MCAIR. Resolve any varability problems and rework if necessary.

1.3 Phase III – Production of nozzles as required.

2. Please note: All Phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing the nozzles to other companies.

3. In conjunction with the above date, it is requested that Usher provide a quotation for Phase I Development of two (2) prototype nozzles. This quote should be in the form of a labor hous rate plus anticipated material and processing expense which can be converted to a not-to-exceed total for the entire phase. MAC Form 2014, Enclosure (2), or a similar form may be used to detail your calculations. Also, please provide lead time requirements.

4. If our development is successful, MCAIR anticipates that; 1) Phase II and Phase II Quotations will be fixed price efforts and 2) Phase III will include spares in addition to complete assemblies with pricing good for one (1) year with an eight (8) week ARO delivery (typically yearly requirements range from twelve (12) to twenty (2) units).

5. Prompt consideration of this request would be appreciated. Your response and all questions should be directed to Rich Lawson at Area Code (314) 234-9032 (Fax 314-777-2650). A copy of the proposal should also be forwarded to Fred Courtney.

Very truly yours,

/s/ Rich Lawson
Unit Chief-Automate Systems
D.257, M/S 1021111

/s/Fred Courtney
Purchasing Agent
D.764, M/2 2771240

AUSS Nozzle Specifications 31 October 89 R.D. Lawson

Three exit diameters, easily interchangeable 3/16, 1/4, 3/8 inch

One rotating water inlet of 3/8 or 1/2 inch diameter. (At least 180 degrees of rotation)

Self purging air capability from startup.

Nozzle stream will be normal to attachment point within 0.25 degrees. No adjustments are allowed when changing nozzle diameters. This is normally tested by rotating the nozzle tip in its mounting ring and measuring the movement of the stream at a distance of 30 inches. For 0.25 degrees, the circle formed by the center of the stream during rotation would have a diameter of of less than 0.25 inches at the 30 inch standoff distance.

Three inches, transducer face to nozzle tip.

Desire distrotion free stream at least 5 inches from nozzle tip, desire up to 8 inches, with minimum droop of stream.

Distortion will be tested by measuring the variation in the ultrasonic energy being received back from a smooth reflective surface. A variation of 10 percent is allowable at the 5 inch distance.

Typical water flow for current generation nozzles is:

3/16	1 to 1.5 GPM
1/4	2 to 2.5 GPM
3/8	3 to 4 GPM

For long distance operation a 3/16 nozzle is normally used. At 8 inches from nozzle tip to part, with the stream squirting horizontally, a droop of less than 0.02 inches is desired. This will require larger flow rates than listed above.

The transducer should be removeable from the back side.

Button flange or UHF type transducers should be usable.

Transducer diameters of 1/2, 1.0, 1.125 inch will be used.

An overall size 2.875 x 2.875 x 8.0 inches is desirable.

Nozzle to be attached to AUSS pitch mechanism via attachment pattern shown on drawing 257D073032 attached.

[Patent Drawing Omitted In Printing]

SUPPLIER'S BID PRICE BREAKDOWN

Supplier _____

Invitation_____

MANUFACTURING COST

_____Direct Labor Hours @ _____ per hour $ _____

Overhead @ _____% of _____

Purchased Material

Other Direct Costs_____

_____

G. and A. _____ % of _____

ENGINEERING COST:

_____ Direct Labor Hours @ ___ per hour

Overhead @ _____ % of _____

Purchased Material

Other Direct Costs _____

_____

G. and A. _____ % of _____

TOOLING COST

_____ Direct Labor Hours @ _____ per hour

Overhead @ ____ % of _____

Purchased Material

Other Direct Costs _____

_____

G. and A. _____ % of _____

TOTAL COST _____

Earnings @ _____ % of Cost _____

BID PRICE _____

All costs included in this proposal are based on the latest information available to the Supplier including actual cost data, and all such information has been furnished to the Buyer.

APPENDIX W

Ex. F.

USHER'S WATERWORKS
Fountain Shows – Hydrotechnics – Consultants
1570 Fenpark Fenton, Missouri 63026
(314) 343-5485 FAX 343-5871

January 29, 1990

Mr. Rich Lawson, Unit Chief - Automated Systems
McDonnell Aircraft Company
P.O. Box 516
St. Louis, Missouri 63166

Dear Mr. Lawson:

Attached are my two drafts of proposals to produce the specialty nozzles that we have been discussing. We have written them in the form of attachments to your form MDC 858, *Special Terms and Conditions.* The first addresses the activities described in paragraphs 1.1 through 1.1.7 of your Request for Quotation letter, DLF1089-02, also attached, and the second addresses the activities described in paragraphs 1.1.8 and 1.1.9.

As you know, we are very pleased with the prospect doing business with you in the future. We are anxious to make our proposals as simple and straightforward as possible and, therefore, we are grateful that you have consented to take a look at them in a draft form. I look for-

ward to your comments and will be pleased to incorporate whatever changes you suggest.

Sincerely,

/s/ Ronald S. Deichmann
Ronald S. Deichmann
Vice President-General Manager

APPENDIX X

[Draft Proposal #1
Phase IA.]

SPECIAL TERMS AND CONDITIONS
Attachment to McDonnell Douglas Form MDC 858
SPECIALTY NOZZLE PURCHASE AGREEMENT

1. PARTIES.

1.01. The parties to this agreement are:

1.01.01. Usher's Waterworks, Inc., a Missouri Corporation. (Usher's).

1.01.02. McDonnell Aircraft Company (MCAIR).

2. BACKGROUND.

2.01. Usher's Waterworks, Inc. is in the business of creating, designing and fabricating specialty coherent flow nozzles, hereinafter referred to as "Nozzles".

2.02. MCAIR desires to purchase a prototype Nozzle from Usher's, which shall be referred to as the "Nozzle".

AGREEMENT.

3.01. Usher's will create, design, manufacture and supply the Nozzle and will assist in installation of the Nozzle as requested by MCAIR. Said Nozzle will comply with MCAIR's specifications as included in their letter identified as DLF1089-02, dated 30 October 1989 and listed in Schedule "A." attached hereto and made a part hereof.

3.02. The number, type, and development/purchase price of the Nozzles shall be as follows:

Type	*Number*	*Price*
Nozzles		
Coherent Flow Ultra Sonic ~~Testing~~	1	$18,500.

3.03. Any taxes, fees, residuals, duties, tariffs, royalties, or any other charges due and payable to any Federal, State, County, City, Municipality, Foreign Governments, Political Subdivisions; or other third parties due to the purchase, use, installation, repair, or delivery of the Nozzle or its components, shall be borne by MCAIR.

3.04. Any laws, building codes or special requirements to use personnel as required by unions or any Local, State, Federal, Foreign Government or other party to install or repair the Nozzle will be borne by MCAIR.

3.05. This agreement will generally follow those activities listed in Schedule "A.", paragraphs 1.1 through 1.1.7., except that Usher's will deliver one (1) nozzle, rather than the two (2) specified in paragraph 1.1. In the event that two (2) Nozzles are required, then they shall be covered in a separate agreement. This agreement does not include Phase II "Pilot Production" as set forth in Schedule "A.".

3.06. Payment of the purchase price and any other fees will be made in United States Currency, and will be made as follows:

Upon execution of this contract: ($4,625)
Upon completion of Phase I, step 1.1.2: ($4,625)
Upon completion of Phase I, step 1.1.7: ($9,250)

3.07. If development of additional components is required as many possibly arise under Section 1.1.3., 1.1.6., or 1.1.8, the additions may be costed as additional items to the Agreement, as amended and agreed to by MCAIR and Usher's.

4. Delivery.

4.01 The completed Nozzle will be delivered to MCAIR within sixty (60) days of execution of this contract. However, in the event that development is delayed by intermediate testing by MCAIR in excess of two weeks, as anticipated, then the final delivery date may be extended as reasonably agreed to by Usher's and MCAIR. Also, variances requested by MCAIR in the components or the design of the Nozzle may may extend the delivery date as agreed in advance by Usher's and MCAIR.

5. Permitted Delays.

5.01. Usher's will not be liable for any delay in delivering the Nozzle or any failure to perform any provision hereof resulting from fire, or other casualty, riot, strike, or other labor difficulty, government regulation or restriction, vehicular accident during delivery, or any cause beyond the reasonable control of Usher's.

6. **Installation and Testing.**

6.01. Usher's shall assist MCAIR in the installation and testing of the Nozzle on location at McDonnell Douglas in St. Louis, Mo., as reasonably requested by MCAIR to ensure success of the installation, determine the operating characteristics of the Nozzle.

6.02. If travel by Usher's is requested by MCAIR in the design installation and testing of the Nozzle, MCAIR shall provide all reasonable travel expenses and a per-diem similar to that provided to the Customer's employees.

6.03. Usher's shall not be required to install any equipment or device where the installation or act of installation of such equipment or device would constitute a violation of Local, State, Federal, Foreign building Ordinances or Labor Law, nor shall Usher's be held responsible for failure to install such equipment or device.

7. **Installation Preparation.**

7.01. MCAIR shall be responsible for modifications to his existing machinery, if any, to accept installation of components by Usher's.

8. **Notices.**

8.01. Any notices, requests, instructions, or other writings pertaining to this Agreement which are to be given hereunder to MCAIR or to Usher's shall be in writing and sent to the address for such party as defined in Section 8.02.

8.02. The addresses of the parties are:

8.01.01. Usher's: 1570 Fenpark Industrial
Fenton, Missouri 63026
Attn: David R. Usher

8.01.02. MCAIR: McDonnell Douglas Corporation
PO Box 516
St. Louis, MO 63166
Attn: _____

9. No Other Representations.

9.01. All representations made by the parites in the negotiations of this Agreement have been incorporated herein. There are no verbal agreements between the parties to modify the terms and conditions hereof, and any further amendments and modifications of the same must be in writing and signed by the party to be bound.

10. Non-Disclosure.

10.01. The Non-Disclosure Agreement as previously executed on July 11, 1989 between Usher's and MCAIR, a copy of which is attached and incorporated as Schedule "B.", shall remain effective as regards this Agreement. In the event that this contract is terminated as provided under paragraphs 8. or 9. of the General Terms and Conditions (MDC 858), such termination shall not terminate the Non-Disclosure agreement as previously executed by Usher's and MCAIR.

11. Agreement Binding.

11.01. This Agreement shall be binding upon the parties hereto and their respective successors, permitted assigns, and subsidiaries, if any.

12. Ownership of Developed Plans.

12.01. All Phase I development of the specific Nozzle design and specifications will be considered as co-owned by MCAIR and Usher's for use in ultrasonic inspection applications. Prior to Phase II, the Parties will determine any licensing agreements for marketing the Nozzles to other companies.

SIGNATURES **DATES**

USHER's

Usher's Waterworks, Inc.
1570 Fenpark
Fenton, MO 63026

By: _____

_____, 19 ____

David R. Usher, President

MCAIR

_____

_____

_____

_____

_____

By: _____

_____, 19____

Title: _____

APPENDIX Y

Ex. H.

[Draft Proposal #2
Phase IB
ATTACHMENTS OMITTED. PARAGRAPHS
DIFFERING FROM PROPOSAL #1 INDICATED]

SPECIAL TERMS AND CONDITIONS
Attachment to McDonnell Douglas Form MDC 858
SPECIALTY NOZZLE PURCHASE AGREEMENT

1. PARTIES.

1.01. The parties to this agreement are:

1.01.01. Usher's Waterworks, Inc., a Missouri Corporation. (Usher's).

1.01.02. McDonnell Aircraft Company (MCAIR).

2. BACKGROUND.

2.01. Usher's Waterworks, Inc. is in the business of creating, designing and fabricating specialty coherent flow nozzles, hereinafter referred to as "Nozzles".

2.02. MCAIR desires to purchase a prototype Nozzle from Usher's, which shall be referred to as the "Nozzle".

AGREEMENT.

3.01. Usher's will create, design, manufacture and supply the Nozzle and will assist in installation of the Nozzle as requested by MCAIR. Said Nozzle will comply with MCAIR's specifications as included in their letter identified as

DLF1089-02, dated 30 October 1989 and listed in Schedule "A." attached hereto and made a part hereof.

3.02. The number, type, and development/purchase price of the Nozzles shall be as follows:

Type	*Number*	*Price*
Coherent Flow Ultra Sonic ~~Testing~~— Nozzles	2	$4,200.

3.03. Any taxes, fees, residuals, duties, tariffs, royalties, or any other charges due and payable to any Federal, State, County, City, Municipality, Foreign Governments, Political Subdivisions; or other third parties due to the purchase, use, installation, repair, or delivery of the Nozzle or its components, shall be borne by MCAIR.

3.04. Any laws, building codes or special requirements to use personnel as required by unions or any Local, State, Federal, Foreign Government or other party to install or repair the Nozzle will be borne by MCAIR.

3.05. This agreement will generally follow those activities listed in Schedule "A.", paragraphs 1.1.8 through 1.1.9. This agreement does not include Phase II "Pilot Production" as set forth in Schedule "A.".

3.06. Payment of the purchase price and any other fees will be made in United States Currency, and will be made as follows:

Upon completion of Phase I, step 1.1.9: $4,200

3.07. If development of additional components is required as may possibly arise under Section 1.1.3., 1.1.6., or 1.1.8, the additions may be costed as additional items to the Agreement, as amended and agreed to by MCAIR and Usher's.

4. Delivery.

4.01 The completed Nozzle will be delivered to MCAIR within fifteen (15) days of both execution of this contract and delivery of the similar Nozzle described under sections 1.1 through 1.1.7 of Schedule A. and provided for under a separate contract. Variances requested by MCAIR in the components or the design of the Nozzle may may extend the delivery date as agreed in advance by Usher's and MCAIR.

5. Permitted Delays.

5.01. Usher's will not be liable for any delay in delivering the Nozzle or any failure to perform any provision hereof resulting from fire, or other casualty, riot, strike, or other labor difficulty, government regulation or restriction, vehicular accident during delivery, or any cause beyond the reasonable control of Usher's.

6. Installation and Testing.

6.01. Usher's shall assist MCAIR in the installation and testing of the Nozzle on location at McDonnell Douglas in St. Louis, Mo., as reasonably requested by MCAIR to ensure success of the installation, determine the operating characteristics of the Nozzle.

6.02. If travel by Usher's is requested by MCAIR in the design installation and testing of the

Nozzle, MCAIR shall provide all reasonable travel expenses and a per-diem similar to that provided to the Customer's employees.

6.03. Usher's shall not be required to install any equipment or device where the installation or act of installation of such equipment or device would constitute a violation of Local, State, Federal, Foreign building Ordinances or Labor Law, nor shall Usher's be held responsible for failure to install such equipment or device.

7. **Installation Preparation.**

7.01. MCAIR shall be responsible for modifications to his existing machinery, if any, to accept installation of components by Usher's.

8. **Notices.**

8.01. Any notices, requests, instructions, or other writings pertaining to this Agreement which are to be given hereunder to MCAIR or to Usher's shall be in writing and sent to the address for such party as defined in Section 8.02.

8.02. The addresses of the parties are:

8.01.01. Usher's: 1570 Fenpark Industrial
Fenton, Missouri 63026
Attn: David R. Usher

8.01.02. MCAIR: McDonnell Douglas Corporation
PO Box 516
St. Louis, MO 63166
Attn: _____

9. No Other Representations.

9.01. All representations made by the parites in the negotiations of this Agreement have been incorporated herein. There are no verbal agreements between the parties to modify the terms and conditions hereof, and any further amendments and modifications of the same must be in writing and signed by the party to be bound.

10. Non-Disclosure.

10.01. The Non-Disclosure Agreement as previously executed on July 11, 1989 between Usher's and MCAIR, a copy of which is attached and incorporated as Schedule "B.", shall remain effective as regards this Agreement. In the event that this contract is terminated as provided under paragraphs 8. or 9. of the General Terms and Conditions (MDC 858), such termination shall not terminate the Non-Disclosure agreement as previously executed by Usher's and MCAIR.

11. Agreement Binding.

11.01. This Agreement shall be binding upon the parties hereto and their respective successors, permitted assigns, and subsidiaries, if any.

12. Ownership of Developed Plans.

12.01. All Phase I development of the specific Nozzle design and specifications will be considered as co-owned by MCAIR and Usher's for use in ultrasonic inspection applications. Prior to Phase II, the Parties will determine any licens-

ing agreements for marketing the Nozzles to other companies.

SIGNATURES **DATES**

USHER's

Usher's Waterworks, Inc.
1570 Fenpark
Fenton, MO 63026

By: _____

_____, 19 ____

David R. Usher, President

MCAIR

_____

_____

_____

_____

_____

By: _____

_____, 19 ____

Title: _____

Ex. I

PURCHASE ORDER NO. V00344

CHANGE ORDER NO.

SHIP TO 250
SIDS C17

TO: USHER'S WATER WORKS INC.
1570 FENPARK DRIVE
FENTON, MO
21018-001 63026

PURCHASE ORDER
INTERNAL
FXC F18

DATE 02/28/90
TERMS: N/30
F.O.B. ORIGIN
ROUTING SURFACE-SEE SPEC COND
REFERENCE REQ. NO. 021373
P.O. TOTAL $18,500.00

PLANNER J. JONES
QUOTE ATTACHED

All references contained herein to MCAIR, MCAUTO, MDEC, MDAC-STL, ETC., shall mean McDonnell Douglas Corporation.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT
001	1.00	LT	NOZZLE & DEVELOP. NOZZLE & DEV.	$18500.00	LT	$18500.00

ONE COHERENT FLOW ULTRASONIC
NOZZLE INCLUDING DEVELOPMENT COSTS
ITEM TYPE CODE C
INS CODE N
INT DEL TO RUCKER 415 102
PLANNER J. JONES DEPT 852B ITEM 001
REQUESTOR – JE JONES/RICH LAWSON

PLANNER SCHEDULE AND JOB CHARGES

SCHED	SCHED QTY	TYP	JOB-IT-C/C	CAT	JOB QTY	PRGM	FY	CUST
13 APR 90	1.00	9	F18-40-20R	C	1.00			

PURCHASE ORDER TOTAL $18500.00

SPECIAL CONDITIONS

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

INTERNAL NOTES

COND 0150 The following remarks apply for internal purposes:
General Remarks

PO COPIES TO:

JAMES E. JONES	102-1111
JR RUCKER	102-1411
DICK MAY	102-1111
RICH LAWSON	102-1111

140a

COND 0190 DELIVER TO: DICK MAY, DEPT 257, BLDG 102, LEVEL 2, POST K240
ITEM 1, FOR AUSS HIGH POWER (ENG. RICH LAWSON)

PRICING

COND 0502 The prices of this order are fixed and cannot be increased except by written authorization of the MDC Purchasing Representative pursuant to the terms of this order.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT
COND 0582			All materials required for the fabrication of the goods ordered hereunder shall be furnished by Seller. The costs of all such material is included in the contract price as stated herein.			
			SCHEDULES			
COND 1009			Items delivered more than thirty (30) days prior to the purchase order item delivery schedule, or an earlier MDC required delivery schedule if contained herein, may at MDC's discretion, be returned to Seller. Seller will be charged shipping costs and MDC's handling costs for returning the shipment.			
			QUALITY ASSURANCE			
COND 2072			At MDC's option, MDC personnel may be sent into Seller's plant to inspect progress, quality and procedures of any MDC project for as long and as often as MDC deems necessary. Seller shall provide reasonable facilities and assistance to MDC personnel engaged in such activities.			
			PACKAGING			
COND 3572			1. Commercial packaging is normally acceptable for shipment to MDC. Seller is responsible for selecting packaging methods and materials			

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

which provide adequate protection at minimum cost. Packaging methods and materials selected should consider, as a minimum, fragility, part composition, surface finish, size, weight and transportation mode. Packaging specified or referenced in this contract must be adhered to unless written deviationis authorized by MDC. Non-conforming packaging is subject to rejection or repackaging at Seller's expense. Questions concerning these packaging instructions are to be directed to Manager-Dept. 789, TEL. (314) 234-7693. Any change in price, terms or conditions must be approved by the undersigned MDC Purchasing Representative prior to implementation.

2. Each P.O. item must be packaged and identified separately. Markings on primary packaging must include the part number, nomenclature and quantity. If applicable, include serial number, lot number and cure date. DO NOT combine items from different Purchase Orders in the same shipping container.

3. All containers are subject to material inspection and should provide a reclosable feature. For this and housekeeping reasons, loose fill packaging material, I.E. plastic peanuts, is prohibited unless contained in polyethylene bag or similar method.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

4. Two or more shipping containers and/or a total weight exceeding 150 lbs. must be combined into a unitized load. THe limit size of unitized loads is 50" overall height, 42" x 48" pallet (double deck construction) and a maximum 4" overhang on any side. Unit loads must be properly stacked and bound (i.e., efficient stacking pattern) and bound by stretch wrap. Containers over 150 lbs. and/or 60" and up foot print, must integrate 4 way entry skid permitting the use of standard material handling equipment.

5. Seller must provide legible packing slips in duplicate in a conspicuous and easily accessible place on the inside of the shipping container, unitized or palletized load. The packing slip must state the Purchase Order number, purchase Order item number and part number as shown on this contract. All associated paperwork (I.E. certifications, test reports, MRD's, etc.) must be located with the packing slips.

In addition, one copy of the packing slip must be in a conspicuous and easily accessible place on the outside of the shipping container or unit load. Each shipping container shall be identified with the address, Purchase Order, Item Number(2) and Part Number.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

SHIPPING AND ROUTING

COND 4002 -SHIP TO-

McDonnell Douglas Corporation
Building 250
6951 North Hanley Road
Hazelwood, Missouri 63042

COND 4040 Seller will instruct the carrier(s) involved that shipment is to be prepaid and freight bills are to be forwarded to:

McDonnell Douglas Corporation
c/o Freightpay by Cass
Post Office Box 67
St. Louis, Missouri 63166.

COND 4081 Consign shipments to the address specified in this contract. Seller shall ship collect to McDonnell Aircraft receiving locations in zip codes 63031 through 63301, i.e., St. Louis, Mo., St. Charles, Mo., Hazelwood, Mo., and Berkeley, Mo., etc. Do not prepay and add freight charges on your invoice. Do not insure or issue a declared value for ship-

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

ments under $5 Million. For shipments in excess of $5 Million contact McDonnell Aircraft facilities in the above zip codes at 314-234-7650 for instructions. Drop shipments to destinations other than McDonnell Aircraft facilities in the above zip codes should be prepaid with instructions for the carrier to bill McDonnell Aircraft Company c/o Transportation Business Specialists, P.O. Box 5177, St. Joseph, Mo. 64505.

Surface Shipments originating in the greater Los Angeles, CA area, i.e. aip codes 90000 through 95399 shall be shipped via South Coast Trucking, 420 East Hyde Park Blvd., Inglewood, CA 90302, 213-419-0655 when the destination is to McDonnell facilities in St. Louis, MO; St. Charles, MO; Hazelwood, MO; and Berkeley, MO; i.e. zip codes 63031 through 63301. If South Coast Trucking is unable to provide direct service on the pick-up or delivery Seller may then use either P.I.E. Nationwide or Consolidated Freightways as alternate carriers.

For all other surface shipments not in the greater Los Angeles, CA area weighing:

1 Lb to 150 Lbs ship:

Federal Express Standard Air (150 lbs per package maximum and 130" length and girth), Account No. 0630 0453 7.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

151 lbs to 19,999 lbs. ship:

1) Consolidated Freightways or P.I.E. Nationwide - within the continental U.S. from and to all destinations except: a) Los Angeles, CA area to St. Louis, St. Charles, Hazelwood and Berkley, MO, zip codes 63031 through 63301. b) Shipments within the states of Arkansas, Illinois, Indiana, Kansas, Louisiana, Missouri, Ohio, Oklahoma, Tennessee, Texas and Wisconsin.

2) Bemac Transport as the primary carrier with Consolidated Freightways or P.I.E. Nationwide as alternates from and to all locations within the states of Illinois, Indiana, Missouri, Ohio, Texas and Wisconsin.

3) Arkansas Freightways as the primary carrier with Bemac, Consolidated Freightways or P.I.E. Nationwide as alternates from and to all locations within the states of Arkansas, Kansas, Louisiana, Oklahoma, and Tennessee.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

Seller shall use the primary carriers first. If that carrier is unable to provide direct service on the pick-up or delivery, Seller may then use one of the alternate carriers to provide direct service.

For shipment of 20,000 lbs or more or taking up a full trailer, i.e. full viaible capacity or requiring the use of specialized equipment i.e. flatbed, dropframe or air ride trailer, call McDonnell Aircraft Traffic Department at 314-234-7650 before any transportation arrangements are made.

Failure to follow these routing instructions will result in a debit being issued for the difference in freight costs between the carrier you choose and the carrier specified in this condition.

INVOICING

THE FOLLOWING CONDITION APPLIES ONLY TO ITEMS:
001

COND 4503 Goods purchased hereunder are for resale. No sales or use taxes should be invoices to MDC.

COND 4506 All invoices and correspondence regarding invoices relevant to this contract should be directed to the following address:

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

Accounts Payable (2772221)
McDonnell Aircraft Company
Box 66742
St. Louis, MO. 63166-6742

ADMINISTRATIVE

COND 7503 DO NOT DUPLICATE. This contract was previously communicated via TELECON RON DEICHMANN

COND 7515 The responsibility for the contractual administration of this contract at MDC is vested in the Procurement Division of McAir. Accordingly, the contract and any change orders and/or amendments thereto shall require the signature of the McAir Subcontract Administrator or higher Procurement Division authority. The signature of an associate subcontract administrator is not authorized. Any effort on Seller's part in performing a change to the scope of work prior to receipt of authorization from the McAir Subcontract Administrator or higher Procurement Division authority, will be at the Seller's risk.

COND 7572 THIS CONTRACT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF MISSOURI

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

REGARDLESS OF THE PLACES OF EXECUTION OR PERFORMANCE OF THIS CONTRACT. THIS NOTICE IS REQUIRED BY SECTION 35.53 OF SUBCHAPTER D, CHAPTER 35, BUSINESS AND COMMERCE CODE OF THE STATE OF TEXAS.

FLOW DOWN

COND 8034

1. The contract clause entitled "Anti-Kickback Act Procedures" set forth in FAR 52.203-7 is made a part of this contract by this reference, with the following modifications: the term "the Contractor" shall mean Seller, and the term "the Contracting Officer" shall mean the contracting officer cognizant of the prime contract under which this contract was awarded.

2. By its acceptance of this contract, Seller warrants and represents to MDC that neither Seller nor any immediate or lower-tier subcontractor of Seller nor any person acting on behalf of any of them has engaged in conduct prohibited by Section 3 of the Anti-Kickback Act of 1986 (Public Law 99-634) relating to this contract or any subcontract or lower-tier subcontract under this contract. Seller shell indemnify, defend and save harmless MDC, its officers, agents and employ-

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

ees, from all losses, costs, fees and damages resulting, directly or indirectly, in whole or in part from any conduct prohibited as aforesaid in which Seller, any immediate ow lower-tier subcontractor of Seller or any person acting on behalf of any of them has engaged or hereafter engages relating to this contract or any lower-tier subcontract under this contract. MDC shall have the right to withhold from any sums due Seller under this contract: (i) if so directed pursuant to Section 6 of the aforesaid act or pursuant to the Anti-Kickback Act Procedures Clause of the prime contract or higher-tier subcontract under which this contract has been issued by the contracting officer or agency cognizant of the prime contract under which this contract was awarded, or (ii) to recoup losses, costs, fees and damages against the incurrence of which Seller has agreed in this clause to indemnify MDC. For purposes of this clause, the definitions of the terms "subcontractor", "subcontract" and "person" shall be deemed to be those set forth in Section 2 of said act.

3. Any report made pursuant to this clause also shall be made to the Vice-President-Material of the component placing this contract, or to:

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

MDC Corporate Material Office
P.O. Box 516
HQ 7S Mail Code 100 1160
St. Louis, Mo. 63166

DO NOT USE THE ABOVE ADDRESS FOR GENERAL CORRESPONDENCE, INVOICING, ACKNOWLEDGEMENT OR CONFIRMATION OF RFQ'S OR PURCHASE ORDERS. USE ONLY FOR NOTIFICATION AS REQUIRED BY THE PROVISIONS OF THIS CONDITION.

151a

ATTACHMENTS

COND 9803 The following attachments are hereby incorporated into and made a part of this contract:
Attachment Number
MDC 858
MDC FORM 858 GENERAL TERMS AND CONDITIONS.

ITEM	QUANTITY	UM	PART NO./ NOMENCLATURE/ DESCRIPTION	P.O. UNIT PRICE	P.O. UM	EXTENDED AMOUNT

SUPPLIER ACCEPTANCE

COND 9903 Acceptance of the offer represented by this Purchase Order shall be by signing and returning one copy to the MDC buyer.

Accepted for Seller by: _____ Title _____ Date _____

McDonnell Douglas Corp. by:

_____

Buyer F. H. COURTNEY | Phone 314-232-4281 | Date

APPENDIX AA

[CONFIDENTIAL] Ex. E.

[Received JUL 31 1998]

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Ronald S. Deichmann, and
Usher's WaterWorks, Incorporated

v. Cause No. 4:97CV01913SNL

Boeing Company having an office in Missouri
at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146,
formally McDonnell Douglas Corporation

FILED UNDER SEAL
FACTS AND OPINIONS OF EXPERT WITNESS

I BACKGROUND FACTS

1. My name is Stephen Pevnick.

2. I am Associate Professor of Art at University of Wisconsin, Milwaukee, Wisc.

3. My background information and credentials are attached as Ex. A.

4. As can be seen from Ex. A., I have been working, studying and doing research in the field of fluid and water technology for 25 yeats.

5. I have reviewed documents supplied to me by Attorney Henry W. Cummings including documents produced by Plaintiffs Usher's WaterWorks and Ronald S. Deichmann and by Defendant Boeing Co., some of

which were marked CONFIDENTIAL and others marked CONFIDENTIAL, ATTORNEYS AND EXPERTS ONLY.

6. Plaintiff Usher's WaterWorks, Incorporated, is a Missouri corporation doing business at 1136 Washington in St. Louis, Missouri 63101. Plaintiff Ronald S. Deichmann is an indivigual residing at 6040 Circle Drive, House Springs Mo., 63119, and is President and a part owner of Plaintiff Ushers' WaterWorks.

7. Defendant Boeing Company is a corporation located in Seattle Washington, doing business in St. Louis, Missouri as Boeing Company, having an office at Airport Rd. and McDonnell Blvd. St. Louis Mo. 63146, and on information and belief, has taken over the assets and liabilities of McDonnell Douglas Corporation (MDC).

II CHRONOLOGICAL FACTS

1. Sometime during the calendar year 1989, the specific date uncertain, Defendant's Predecessor, McDonnell Douglas Corporation (MDC) contacted Plaintiff Usher's WaterWorks, Incorporated and requested information concerning Plaintiff Usher's WaterWorks laminar flow nozzle apparatus.

2. Plaintiff's personnel agreed to meet with MDC personnel, but required as a condition of the meetings that MDC enter into a confidential agreement concerning disclosure of information by Plaintiff Usher's WaterWorks to MDC.

3. On or about August 10th, 1989 a confidential agreement was entered into between Plaintiff and MDC. It was executed by Mr. B.J. Whiting of MDC and Mr. David Usher of Plaintiff Usher's WaterWorks (Exhibit B).

4. This agreement provided that Plaintiff Usher's WaterWorks would disclose confidential and proprietary

information to MDC on the condition that MDC (recipient) agreed not to disclose the Information to third parties and not to engage in any communication with third parties regarding the confidential information without prior written consent of Plaintiff Usher's WaterWorks, Par. 3 and 4 for a period of five (5) years.

5. On information and belief, this confidential information was disclosed to specific MDC personnel including Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems. Ex. D. is a photocopy of the their business cards given to Plaintiff Deichmann at one or more of the meetings.

6. On or about Oct. 30, 1989 MDC issued Request for Quotation #DLF1089-02, to Dave Usher then President of Usher's Waterworks, attached Ex.E. On page 2, the following language appears "2. Please note: All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

7. On Jan 29, 1990 Plaintiff Ronald S. Deichmann, then Vice President and General Manager of Usher's Waterworks wrote to Rich Lawson, then Unit chief-Automated Systems of MDC, Ex. F, attaching two proposed changes as SPECIAL TERMS AND CONDITIONS as an Attachment to MDC Form MDC 858 entitled SPECIALTY NOZZLE PURCHASE AGREEMENT to the Request for Quotation Ex. E, attached as Exs. G. and H respectively. Each contained the same language as the Request for quote in respective Pars 12.01 concerning join ownership of Phase I Developments.

8. On or about Feb. 28, 1990 MDC issued Purchase Order No. V00344 to Usher's Waterworks Ex. I, which incorporated MDC 858 and MDC Form 858 by reference into the Purchase Order on page 8. While three (3) changes were made to the Purchase Order (V00344) on respectively March 14, 1990, Aug. 13, 1990 and Sept. 4, 1990, none of these change Orders changed the the language provided in the the MDC request for Quote "All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies."

9. In accordance with Phase I of the Prototype Construction contract, Plaintiff Ronald S. Deichmann specifically recalls first conceiving, then constructing and disclosing to MDC personnel the concept of introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from the chamber through a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees, hereinafter Usher's Confidential Information. Attached Ex. C compares the MDC and Usher's constructions.

10. This Usher's Confiential Information including at least one prototype was disclosed to one or more of the individuals Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems.

11. There were approximately four meetings between MDC personnel and Plaintiff Ronald S. Deichmann during 1989 and 1991.

12. In addition, prior to filing of the 980,344 application, there was no written or oral communication be-

tween MDC and Plaintiffs concerning whether or not Plaintiff Ronald S. Deichmann had made an inventive contribution to the invention and should have been included in the application.

13. I also received U.S. Patent 5,431,342 and the references relied on by the Examiner in the Prosecution leading to U.S. Patent 5,431,342.

III OPINIONS

14. MDC personnell came to Plaintiffs with an ultrasonic testing system (Claim3 & 16) including a tapered plenum chamber without porous material to redcue turbulance or a knife edge orifice. Plaintiffs provided the cylindrical plenum chamber 17, porous material 15 and the knife edge orifice 23, (Claims 1, 2 & 14). After receving the Confidential Information and prototype, MDC provided the surface 27 to prevent ultrasonic waves from being reflected bach onto emittng surface 35, (Claims 5, 8, 21 & 27). Thus there is proper joint inventorship between Plaintiffs and MDC of Claims 3-13, and 15-35. The fact that Deichmann solely invented Claims 1, 2 & 14 does not invalidate the Patent. Shields v. Halliburton Co. 216 USPQ 1066, 1069 (5th Cir. 1982); Vekamak Holland B.V. v. Pipe Benders Inc. 211 USPQ 955, 966 (D. Minn. 1981).

15. In accordance with the Prototype Construction Contract, a Development Program was introduced at MDC to take the prototypes and Usher's confidential information received from Plaintiffs and utilize it to form a laminar flow system to be utilized in ultrasonic testing of MDC aircraft parts. In the Development Program the Usher's Confidential Information was added to and merged with MDC ultrasonic testing information and data to form Phase I Confidential Information.

16. Furthermore, prior to submitting the patent application Ser. No. 980,344 to the U.S. Patent and Trademark Office on or about Nov.23, 1992,342 within the five year term of the Confidentiality Agreement (Exhibit B, Par. 8), and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent5,431,342 (Exhibit B, Par 8), MDC breached the Confidentiality Agrrement by making no effort to contact Plaintiff Ushers' WaterWorks as required by the agreement and obtain consent to disclose the confidential information to the U.S. Patent and Trademark Office and the Examiners therein as required by the agreement (Exhibit B-Par. 4).

17. MDC breached it's Prototype Construction contract with Plaintiffs Usher's WaterWorks that "all phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications and prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies." because this Phase I confidential subject matter was placed in the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, resulting in U.S. Patent 5,431,342, by MDC without discussing with and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the confidential Phase I Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

18. On information and belief MDC (MCAIR) further breached the Prototype Construction Contract by entering into a Phase II Pilot Program and then Phase III Commercial Production without notifying Usher's or Ronald S. Deichmann, and without enetering into any discussions with Usher to "determine any licensing agreements for marketing nozzles to other companies", before dis-

closing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic testing equipment.

19. After the third change Order was issued by MDC to Purchase Order V00344 on or about Sept. 4, 1990, nothing further was heard from MDC concerning the Development Program until U.S. Patent 5,431,342 (Exhibit A-1) was issued to MDC personnel. Consideration of Exhibit A reveals that Plaintiff Ronald S. Dieckmann was not included as an inventor of the patent.

20. This Usher's Confiential Information including at least one prototype was disclosed to one or more of the individuals Mr. Rich Lawson of Automated Systems, Mr. Marvin Burr of Quality Assurance Nondestructive Testing, and Mr. Mark Leach also of Automated Systems.

21. Concerning the references relied on by the Examiner in the Prosecution leading to U.S. Patent 5,431,342, Jeffras U.S. Patent 4,393,991 discloses a sonic water jet nozzle including a sonic transducer 24 located within a plenum chamber 22 which is tapered at 20 and includes fin-like members 23. Water entering radiallythrough conduit 16 flows longitudinally at 18, and then is compressed by the tapered walls. Some turbulance is reduced by fins 23. The tapered portion 20 would tend to to increase turbulance of the water, in contrast to the cylindrical plenum chamber of P:laintiff Deichmann. The fins 23 are less effective in reducing turbulance than the [illegible]rous material in the Deichmann construction. The lack of a knife edge orifice, as contained in the Deichmann concept, would reduce the tendency to achieve laminar flow.

22. Ellison U.S. Patent 3,473,562 discloses a Water Faucet Silencing Means in a device for mixing hot and

cold water including a longitudinally extending screen 34 within the device. This water faucet is not in a sonic wave generating environment. And the longitudinally extending screen would not be any where near as effective as Plaintiff Deichmann's porous material in reducing turbulance.

23. Katz U.S. Patent 1,967,577 discloses an Automatic Flow Regulator in an unrelated non-sonic automobile carburator environment where the objective is to achieve atomization. Figure 4 discloses what appears to be a knife edge orifice and Figure 4 discloses a shape similar to surface 27 in the MDC patent. Since the automobile carburater is desinged for fuel atomization, rather than the formation of laminar flow for ultrasonic testing, one skilled in the art would not adapt the Katz carburator teachings to ultrasonice testing. This was apparently the Opinion of the Patent Examiner.

24. In failing to name Ronald S. Deickmann as a co-inventor of Application Ser. No. 980,344 filed Nov.23, 1992, and Application Ser. No. 164,662 filed Dec. 8, 1993, MDC through error and without deceptive intent, misrepresented the inventorship of the applications.

25. Furthermore, there was no offer of MDC to Plaintiffs for compensation for the contribution made to the concept by Ronald S. Deichmann which was agreed to be "co-owned" in the Prototype Construction Agreement between MDC and Usher's.

26. On information and belief, MDC breached the Prototype construction contract by proceeding with Phase II Pilot Production and Phase II Commercial Production without allowing Plaintiffs to supply the nozzles. On information and belief, MDC and Defendant Boeing are utilizing Usher's Confidential Information and Phase I

Confidential Information to ultrasonically test aircraft parts and other parts, and to sell and lease ultrasonic machines containing Usher's Confidential Information and Phase I Confidential Information to MDC customers and Boeing customers to ultrasonically test aircraft parts.

27. MDC breached the first contract with Plaintiff Usher's WaterWorks by disclosing Usher's Confidential Information received by MDC from Plaintiffs including at least in part the specifcation and claims of application Ser Nos. 980,344 filed Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, without obtaining the written approval of Plaintiff Usher's WaterWorks to submit the information to a third party, the U.S. Patent and Trademark Office and its Examiners; and further, on information and belief disclosing said Usher's Confidential Information to Defendant and to MDC's and Boeing's customers including, but not limited to, purchasers, licencees, and leasees of ultrasonic equipment for testing aircraft and other parts.

28. The court should order an accounting of any and all machines built by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs; any and all machines sold, licensed or leased by MDC and Defendant embodying the said Usher's Confidential Information supplied to MDC by Plaintiffs.

29. The court should award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, licensses and other customers of ultrasonic testing of aircraft and other parts up to and including the present time, of the said Uhser's Confidential Information supplied to MDC by Plaintiffs.

30. The Court should order punitive damages against Defendant because of MDC's wanton failure to comply

with the terms of the confidential information agreement including failing to obtain prior permission from Plaintiff Usher's WaterWorks before disclosing Usher's Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Usher's Confidential Information to Boeing and customers of MDC and Boeing, and for failing to compensate Plaintiffs for their use of the said Usher's Confidential Information in ultrasonic testing of aircraft and other parts.

31. The Court should order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Usher's Confidential Information.

32. The Court should hold that MDC breached it's second, Prototype Construction contract with Plaintiffs Usher's WaterWorks that "all phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing ageeements for marketing nozzles to other companies." The concepts of Usher's Confiential Information including introducing water in a radial direction inwardly into a cylindrical plenum chamber through a porous wall of permeable material and then to allow the water to exit from a knife-edged orifice in which the angle of the orifice was of the order of 30 degrees was Usher's Confiential Information. This was disclosed orally and in in at least one prototype delivered to MDC by Uhser's by Ronald S. Diechmann. MDC added additional Phase I confidential information, including, but not limited to, ultrasonic testing information and data. MDC breached this Prototype Construction contract because this Phase I confidential subject matter was placed in the specification and claims of application Ser Nos. 980,344 filed

Nov.23, 1992 and Application Ser. No. 164,662 filed Dec. 8, 1993, and the claims of US Patent 5,431,342, by MDC without discussing with, and obtaining the written approval of co-owner Plaintiff Usher's WaterWorks, to submit the Phase I Confidential Development information to a third party, the U.S. Patent and Trademark Office and its Examiners.

33. MDC (MCAIR) further breached this Prototype Construction Contract by entering into a Phase II Pilot Production Program and Phase III commercial Production without notifying Usher's or Ronald S. Deichmann; without enetering into any discussions with Usher to supply the nozzles or "determine any licensing agreements for marketing nozzles to other companies", before disclosing said Phase I Confidential Development information to Defendant Boeing and other customers including, but not limited to, purchasers, licensees and leasees of ultrasonic equipment for testing aircraft and other parts.

34. The Court should order an accounting of any and all machines built by MDC and Defendant embodying the said Phase I Development Confidential Information, the Phase II Pilot Production, and Phase III Commercial Production, any and all machines sold, licensed or leased by MDC and Defendant embodying the said Phase I Development Confidential Information, including the Phase II Pilot Production and the Phase III Commercial Production.

35. The Court should award compensatory damages to Plaintiff for the use by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the Phase II Pilot Production and the Phase III Commercial Production.

36. The Court should order punitive damages against Defendant because of MDC's wanton failure to comply with the terms of the Prototype Construction agreement including failing to obtain prior permission from Co-Owner Usher's WaterWorks before disclosing Phase I Confidential Information to U.S. Patent and Trademark Office and on information and belief disclosing said Phase I Confidential I information to Boeing and customers of MDC and Boeing, with discussing and determining licensing agreements; for failing to include Plaintiffs in Phase II Pilot Production and Phase III Commercial Production; and for failing to compensate Plaintiffs for their use of the said Phase I confidential information in ultrasonic testing of aircraft and other parts.

37. The Court should order that a reasonable royalty be paid to Plaintiffs by Defendant for all subsequent sales, lease and use of ultrasonic testing devices utilizing the said Phase I confidential information, including Phase II Pilot Ptoduction and Phase III Commercial Production.

38. The Court should declare that the inventorship of U.S. Patent 5,431,342 is presently incorrect due to error, by MDC without deceptive intent, for failing to name Plaintiff Ronald S. Dieckmann as a co-inventor of the patent for his innovative contributions to the claimed subject matter in the patent.

39. The Court should order that Plaintiff Ronald S. Dieckmann's name be added to U.S. Patent 5,431,342 as co-inventor of U.S. Patent 5,431,342.

40. The Court should order that Usher's WaterWorks be named as co-owner of U.S. Patent 5,431,342 since the Phase I Confidential Information was jointly owned.

41. The Court should order and accounting of any and all machines built by MDC and Defendant embodying the specification and claims of US Patent 5,431,342 because the Phase I Confidential Information was jointly owned; and an accounting of any and all machines sold or leased by MDC and Defendant embodying the specification and claims of US Patent 5,431,342.

42. The Court should award compensatory damages to Plaintiffs for the use of the jointly owned, claimed patented concept by MDC and Defendant Boeing and their respective purchasers, leases and other customers in ultrasonic testing of aircraft and other parts up to and including the present time.

43. The Court should order a reasonable royalty for future use, sale and lease of the jointly owned patented concept by MDC and Boeing, be payable to Plaintiff Usher's WaterWorks.

I make the foregoing statements with knowledge that willful false statements are punishable under currently in force perjury statutes, and may effect the validity of U.S. Patent 5,431,342 and any subsequent changes made in said U.S. Patent as a result of this litigation.

/s/ Stephen H. Pevenick MFA, IDSA

Stephen Pevenick

[Certificate Of Service Omitted In Printing]

EXHIBIT A

UNDERTAKING

The undersigned has read the attached Protective Order, understands its contents, and hereby acknowledges and agrees that he/she will not disclose all or any part of the Confidential Information, as that term is defined in the attached Protective Order, to any person and/or entity who is not permitted to have access to such Confidential Information under the terms of the Protective Order. In addition, the undersigned hereby acknowledges and agrees that he/she will not use any of such Confidential Information for any purpose whatsoever other than in connection with this litigation. The undersigned further agrees either to return all Confidential Information disclosed and/or supplied by any party, directly or indirectly, and all copies and reproductions thereof and all notes or other transcriptions made therefrom, to the party producing the Confidential Information, or to destroy and to certify the destruction of all copies of any and all materials containing all or any portion of the Confidential Information, including any notes or other transcriptions made therefrom, within thirty (30) days of the conclusion of the litigation and any appeals thereof. The undersigned understands that a violation of this undertaking may be actionable and punishable as, among other things, contempt of court.

/s/ Stephen H. Pevnick, MFA, IDS

Name

2602 E. 2602 E. Hampshire St.

Home Address & Phone Number

Milwaukee WI 53211 TEL 414 9611

Occupation

Educator/Researcher

Employer

The University of Wisconsin – Milwaukee

Job Title

ASSOCIATE PROFESSOR OF ART

Stephen H. Pevnick MFA, IDSA

Born: 1944

Educational Experience:

1972 MFA, Multi-media, sculpture, Washington University, St. Louis (Scholarship). Also studied Electrical Engineering and Architecture

1968 BA, Design, Southern Illinois University, Carbondale

Teaching Experience:

1972-1974. Instructor, University of South Florida at Tampa

1975-1978, Assistant Professor, University of South Florida at Tampa

Tenured

1978-1983, Assistant Professor-University of Wisconsin at Milwaukee

1984-Present, Associate Professor-University of Wisconsin at Milwaukee

1995-Visiting Designer, Center for Technological studies at Holon, affiliated with Tel Aviv University, Israel, two months teaching a sophomore industrial design class.

Work Experience and consulting:

1966 Worked for R. Buckminster Fuller, Carbondale, Illinois

1968 Associate Design Engineer for McDonnell Douglas Aircraft Corporation, St. Louis, Missouri.

1969 Designer for Obata Studios, St. Louis, Design Consulting firm

1970 Industrial Designer for CEMREL, educational toy lab, St. Louis, Missouri

1971-72, St. Louis Junior College, part time faculty, teaching freshman design

1972-78, taught as Instructor and then Assistant Professor, three dimensional design and Sculpture courses at the University of South Florida at Tampa. Collaborated with musicians and film makers at the *Systems Complex for the Studio and Performing Arts* at the University of South Florida. Working members included Stan Vanderbeek, Wil Hendel, Larry Austin and John Mizelle.

1978-present, taught as Assistant Professor and then as Associate Professor courses in Three Dimensional Design and Industrial Design at The University of Wisconsin at Milwaukee.

1978-81, Member of *Perihelion*, a collective of photography, film and video artists

1981-82, Wisconsin Art Critic, for *Art Express* Magazine

1984 Restored Stanley Landsman 18 foot cube mirrored "Infinity Chamber" with its 6,000 light bulbs for the Milwaukee Art Museum

1985 Toy Designer, Globe Toys, Kindergym, a pretend exercise bench for 18 month to 5 year old children

1986 Toy Designer, Globe Toys, Kindergym Locker, a toy chest

1987 Toy Designer, Globe Toys, Rules of the Road a set of four road signs 30 inch tall: stop, one way, do not enter and speed limit 5 mph

1988 Toy Designer, Globe Toys, Parking-meter, role modeling toy developed

1989-present Exhibition of computer run fountain for the Kohler Company

1990, fountain hardware Designer for Giltspur Company in Los Angeles on 5,000 water bell fountain.

1993-96, WISTAP Grant, participating consultant, the Graduate School, ORTT (Office of Research and Technical Transfer), UWM. The consulting clients were: Bradley Corp., Pat Ropella, John Wisnewski, Greg Eberhard, Joan Regner, Bradley Beckstorm, Gordon W. Russell, Carl G. Hedman and E. Barbatelli Jr.

1994-96, WISC evaluation consultant for the Wisconsin Innovation Center at UW White Water. The consulting clients were: Jan P. Penn, Steve P. Telegraphis, James Costello, Edward S. Wohl, Jan Ferrell, Kempton Eveleth and Kendrick Snyder.

Professional Organization

The Industrial Designers Society of America, Wisconsin Chapter, 1980-present. One of six founding members of the Wisconsin Chapter. Program Chairman 1991. Educational Chair 1980-1983, 1989-90.

The International Sculpture Center, Washington D.C. and the computer sculpture interest group.

The International Society of Computer Art

Shows

1972 *MFA Thesis Show,* a 12 foot long hot and cold rail of ice, a tactile sculpture. The work is made up of various metals, and electromechanical components and has a 12 foot long slit down the center of the ice which emits 180 degree hot air.

1972 Installation of 12 foot long hot and cold rail of ice at the Library Gallery, the University of South Florida at Tampa.

1973 *Whisper Jet,* group show of simultaneous 12 hour long performances, inflatable hot and cold space.

1973 *Candle Flicker and Sound,* Performance for 4 audience participants, four candle flames and electronic sen-

sors and two moog synthesizers. The flicker of a candle produces 12 octaves of sound in this theater of discovery.

1973 *Candle Flicker and Sound,* St. Johns College, Santa Fe, New Mexico, (same performance as above) Performance for 4 audience participants, four candle flames and electronic sensors and two moog synthesizers. The flicker of a candle produces 12 octaves of sound in this theater of discovery.

1974 One Man Show of, *Hot-dry, Cold-wet,* sculpture, 18 Color Photographs called *Finding a Cool Place,* 12, Concept Drawings (including the 64 Nozzle Rainfall Project) and 16mm Film titled, *Grass and Slip Knot,* at the Teaching Gallery, at the University of South Florida

1974 Ringling Museum, Sarasota, Florida, Group Exhibition of the Art Faculty at the University of South Florida. Exhibited a conceptual thermal sculpture.

1974 Performance of *Wave Form Diffusion Patterns of Fire,* at the Systems Complex for the Studio and Performing Arts, University of South Florida, Tampa, Florida. The materials were heat, electronics and electro-mechanically created wind.

1974 Continuing Performance of *Wave Form Diffusion Patterns of Fire,* at the Systems Complex for the Studio and Performing Arts, the University of South Florida, Tampa, Florida. 3,000 feet of 16 mm. film of fire on three screens while single candle flame pulses 2,000 watts of heat lamps for a participatory environment.

1975 Group Show, Long Boat Key Art Center, Long Boat Key, Florida. Exhibited a pastel self portrait.

1975 "Contemporary Exhibition," jured show at the Society of the Four Arts Museum, Palm Beach, Florida. Exhibited a pastel self portrait.

1976 "Sculptors II," the jured group show at the Miami Museum and Art Center, Miami, Florida. Exhibited participatory sound sculpture, *Straightening a Nail,* including an audio loop and 4 framed sets of photographs.

1977 One Man Show, Pastel Drawings and Sculpture, at the Theater Gallery at the University of South Florida. Exhibited 34 pastel drawings.

1977 "Members Jured Show," the jured group show at the Tampa Bay Art Center, Tampa, Florida. Exhibited four electronic spinning kinetic sculptures.

1977 "Contemporary Exhibition," Palm Beach, Florida, jured group show at the Society of the Four Arts Museum. Exhibited a pastel self portrait drawing.

1979 "Centennial Alumni Show," at Bixby Gallery, Washington University, a show of 60 alumni of the prior 100 years Exhibited a set of six photographs of the "64 Nozzle Rainfall Project."

1979 "Artists Make Toys," Milwaukee Art Museum group show. Exhibited a participatory electronic toy.

1979 "Beloit and Vicinity Show," jured group show, the Wright Art Center, Beloit College, Beloit, Wisconsin. Exhibited a pastel self portrait drawing.

1979 "Perihelion," group show at the Perihelion Gallery, the Iron Block Building, Milwaukee, Wisconsin. Exhibited paper construction with water color and pastel called *Shadow Dance.*

1980 New York Avant Guard Festival, a Charlet Morman "Fluxist" event, an early version of the *64 Nozzle Rainfall Project* is one of six featured installations. First public showing of the programmable free falling water droplet sculpture inside a 30 foot square by 12 foot tall inflatable polyethylene structure. Single frame metamorphos-

ing strobe lit free falling water droplet forms are demonstrated.

1981 "Wisconsin Directions III," a jured show, the *64 Nozzle Rainfall Project* is installed at the Milwaukee Art Museum in a black polyethylene inflatable, 26 feet square by 16 feet tall.

1983 Installation at jured show, the National Conference of the Industrial Designers Society of America in Chicago. The *576 Nozzle Rainfall Project* was installed for the show. Computer run strobe lit water droplet forms were shown metamorphosing.

1984 Installation at CADRE Conference, Silicon Valley, sponsored by San Jose State University, San Jose, California. The *576 Nozzle Rainfall Project* was installed for the show in a 26 foot by 16 foot tall black polyethylene inflatable. Computer run strobe lit water droplet forms were shown metamorphosing.

1987 Installation at Wisconsin Society of Architects conference of the *2,304 Nozzle Rainfall Project,* with its new 2,304 nozzle valve.

1987 One Man Show, "Kindergym Drawings and Photographs," Coker College, Hartsville, South Carolina. 24 drawings and two production toys were exhibited.

1988, Installation at the International Art Exposition at Navy Pier at Chicago of the *2,304 nozzle Rainfall Project* at the entrance to the south leg of the pier. The fountain greeted 60,000 people in four days with water graphics and salutations in six languages. Sponsored at the show by the Klein Gallery in Chicago.

1988, Installation of the *576 Nozzle Rainfall Project* at the Klein Gallery in Chicago in June and July.

1988, Installation of the *2,304 Nozzle Rainfall Project* and a set of 34x 42 inch silk screen and pastel drawings, at the Music and Art Festival at Bowling Green State University in Ohio. The fountain demonstrated a midi interface, a collaboration with composer Yehuda Yannay and jammed with a fusion music group.

1989, Installation of the *2,304 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Dallas, sponsored by Kohler Company and represented by the Klein Gallery in Chicago. 60,000 architects and builders attended the 3 day show.

1990 Second Installation of the *2,304 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Atlanta, sponsored by Kohler Company and represented by the Klein Gallery in Chicago. 70,000 architects and builders attended the 4 day show.

1990 April, Second Installation of the *2,304 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Chicago, sponsored by Kohler Company and represented by the Klein Gallery in Chicago. 60,000 architects and builders attended the 3 day show.

1990 July, Installation of the *2,304 Nozzle Rainfall Project* at the IBM Exhibit, the State of Illinois Building, the Illinois State Fair in Springfield. Sponsored by by IBM Corporation, 270,000 saw the fountain run 12 hours a day for 11 consecutive days.

1990 Video of the *2,304 Nozzle Rainfall Project* included in show on Computer and Art at the Smithsonian Institution in Washington D.C. and included in the conference on this event in Hawaii.

1991 Third Installation of the *2,304 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Dallas, sponsored by Kohler Company and repre-

sented by the Klein Gallery in Chicago. 70,000 architects and builders attended the 4 day show. The Kohler Exhibit at this show won the 1991 Exhibitor Magazine award for the Most Memorable Exhibit in the United States over 100,000 square feet.

1991 Third Installation of the *2,304 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Atlanta, sponsored by Kohler Company and represented by the Klein Gallery in Chicago. 60,000 architects and builders attended the 3 day show.

1991 Gallery artists summer show of small drawings, the Klein Gallery, Chicago. One small drawing exhibited.

1992 First Installation of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Las Vegas, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show. Staging for this show was done in December 1991 in Dallas and following this the fountain was shipped to Las Vegas.

1992 First Installation of the *6,912 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Atlanta, sponsored by Kohler Company. 60,000 architects and builders attended the 3 day show.

1993 Installation of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Las Vegas, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1993 Installation of the *6,912 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Atlanta, sponsored by Kohler Company. 60,000 architects and builders attended the 3 day show.

1994 Installation of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Las

Vegas, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1994 Installation of the *6,912 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Chicago, sponsored by Kohler Company. 60,000 architects and builders attended the 3 day show.

1995 Group Exhibition, *Jewish artists of Milwaukee,* Haggerty Museum of Art, Marquette University, Milwaukee, Wisconsin. Two drawings were requested for the sow.

1995 Installation of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Houston, Texas, at the Astro Dome, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1995 Installation of the *Rainfall Water Laminar* at the National Association of Home Builders' Show in Houston, Texas, at the Astro Dome, sponsored by Sterling Company. 70,000 architects and builders attended the 4 day show. The water effect featured slides rear projected on a water screen. (first shown at the UWM Art Department faculty show on campus the same year.

1995 Installation of the *6,912 Nozzle Rainfall Project* at the National Kitchen and Bath Show in New Orleans, Louisiana, sponsored by Kohler Company. 60,000 architects and builders attended the 3 day show.

1995 Installation of the *Rainfall Water Laminar* at the National Kitchen and Bath Show in New Orleans, Louisiana, sponsored by Sterling Company. 60,000 architects and builders attended the 3 day show. The water effect featured slides rear projected on a water screen. (first shown at the UWM Art Department faculty show on campus the same year.

1995 Group Exhibition, at the Silicon Gallery in Philadelphia, Pennsylvania and video in Paris, France. A video of the Kohler Houston Las Vegas 94 show was presented along with the display of two related drawings. A video tape of the 1994 Kohler Las Vegas show was also displayed at a gallery in Paris in conjunction with this exhibit.

1995 Installation of the 1,728 *Nozzle Rainfall Project* at the World Travel Market show, Earls Court, London, England, the United Kingdom. The show was sponsored by the Emirates Airlines, the United Arab Emirates.

1996 Installation of the *6,912 Nozzle Rainfall Project* at the Naitional Association of Home Builders' Show in Houston, Texas, at the Astro Dome, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1996 Installation of the *Rainfall Water Laminar* at the National Association of Home Builders' Show in Houston, Texas, at the Astro Dome, sponsored by Sterling Company. 70,000 architects and builders attended the 4 day show. The water effect featured slides rear projected on a water screen.

1996 Installation of the 1,728 *Nozzle Rainfall Project* at the ITB show, Messe Convention Center, Berlin, Germany. The show was sponsored by the Emirates Airlines, the United Arab Emirates.

1996 Installation of the *6,912 Nozzle Rainfall Project* at the at the New Car Reveal of the Cadillac Catera, a marketing meeting for the 340 Cadillac Master Dealers who collectively sold 11 billion dollars of product for General Motors. At the Ritz Carlton, Palm Beach, Florida.

1996 Installation of the *6,212 Nozzle Rainfall Project* at the National Kitchen and Bath Show in Atlanta, Georgia, sponsored by Kohler Company. 60,000 architects and builders attended the 3 day show.

1996 Installation of the *Rainfall Water Laminar* at the National Kitchen and Bath Show in Atlanta, Georgia, sponsored by Sterling Company. 60,000 architects and builders attended the 3 day show. The water effect featured slides rear projected on a water screen.

1996 Installation of the *6,912 Nozzle Rainfall Project* at the Summer Olympics in Centennial Park, Atlanta, Georgia, sponsored by Anheuser Busch Corporation. The 21 day installation will have 1.2 million people passing through the park each day and is billed by the City of Atlanta as the largest peace time gathering in World history. I stayed in Atlanta for 42 days and the fountain ran for 28 days straight with two rock concerts in the park each night playing to 70 to 80 thousand people.

1996 Installation of the *6,912 Nozzle Rainfall Project* at the American Ophtalamogy Association Conference for the Upjohn Pharmacia Corporation. The fountain was staged 16 feet off of the ground and toped by a 4 wide by 3 tall video wall. The 4 day show was at McCormick Place, in Chicago, Illinois.

1997 Installation of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Houston, Texas, at the Astro Dome, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1997 Invitational Group show titled, "Impressions of Self" Bay View Gallery, Milwaukee, January through April. exhibited one pastel drawing on paper, a self portrait from 1977.

1997 Installation of the *6,912 Nozzle Rainfall Project* at the National Kitchen and Bath Association Show in Chicago, at McCormick Place, sponsored by Kohler Company. 60,000 industry people attended the 3 day show.

1997 Installation of the *6,912 Nozzle Rainfall Project* at the American Society of Oncology Show in Denver, Colorado, at the Denver Convention Center, sponsored by Glaxo/ Wellocme. 17,000 Doctors and Researchers attended the 4 day show. 60% of the attendance was from Europe, Asia, Africa and South America.

1998 (Jan) Installation of the *6,912 Nozzle 12 ft. Linear Rainfall Project,* fountain during the three days of international press events before the Detroit Auto Show in an installation in the atrium of the Renaissance Center, a John Portman building and new corporate headquarters of General Motors.

1998 (Jan) Installation and first showing of the new 12 ft. wide x 4 in. deep *1,728 Nozzle Rainfall Project* at the National Association of Home Builders' Show in Dallas, Texas, sponsored by Kohler Company. 70,000 architects and builders attended the 4 day show.

1998 (Feb) Installation of the *2,304 Nozzle 4 ft. Linear Rainfall Project* at the Miami Boat Show for Outboard Marine Corporation.

1998 (April) Installation of the new 12 ft. wide x 4 in. deep *1,728 Nozzle Rainfall Project* at the National Kitchen and Bath Association Show, Chicago, at McCormick Place, sponsored by Kohler Company.

recent lecture presentations with slides and video

1987, November, Projected Video Presentation at the Small Computers in the Arts Conference (SCAN), Philadelphia in October. Video documentation was shown

preceded by a slide show of the history of the development of the *Rainfall Project.* This 20 minute presentation was given by each five people and then followed by a panel discussion.

1988, November, Projected Video Presentation at the Small Computers in the Arts Conference (SCAN), Philadelphia in October. Video documentation was shown preceded by a slide show of the history of the development of the *Rainfall Project.* This 20 minute presentation was given by each five people and then followed by a panel discussion.

1989, November, Projected Video Presentation at the Small Computers in the Arts Conference (SCAN), Philadelphis in October. Video documentation was shown preceded by a slide show of the history of the development of the *Rainfall Project.* This 20 minute presentation was given by each five people and then followed by a panel discussion.

1988, Slide presentation and video on the *2,304 Nozzle Rainfall Project* at MCC, the Micro Computer and Electronics Consortium in Dallas, Texas.

1989, Slide presentation and video at the University of the Arts in Philadelphia on the boundaries of Industrial Design and the *2,304 Nozzle Rainfall Project.*

1990, Slide presentation and video at the National Association of Computer Graphics Conference in Anaheim, California on the *2,304 Nozzle Rainfall Project.*

1990, Slide presentation and video on the *2,304 Nozzle Rainfall Project* at the Art and Technology conference at Pennsylvania State University in University Park, Pennsylvania. I was one of four featured speakers.

1991, 4 lectures and seminars at Arizona State University Art Department and Architecture/ Design Depart-

ment sponsored by Center for Technology and the Arts, ASU, Phoenix, Arizona. lectures included the on the *2,304 Nozzle Rainfall Project* and the earliest images of the *6,912 Nozzle Rainfall Project.*

1992, Lecture and separate demonstration presentation at the International Sculptors Conference in Philadelphia at the facilities of the University of the Arts. Lecture was on the *6,912 Nozzle Rainfall Project* and the demonstration was on Adobe Illustrator software on the Macintosh.

1992, Visiting Artist lecture for Art and Technology area of the Chicago Art Institute, Chicago, Illinois. Slides and video of the history of the development of the *6,912 Nozzle Rainfall Project.*

1992, Guest Lecture, Art Department, the University of Wisconsin at White Water, White Water, Wisconsin. Slides and video of the history of the development of the *6,912 Nozzle Rainfall Project.*

1993 Sculpture panel member at ISEA Minneapolis, the Fourth International Symposium on Electronic Arts and separate poster session with video and slide presentation of the *6,912 Nozzle Rainfall Project.* The conference was held at the Minneapolis College of Art and Design in November.

1995 visiting Designer Lecture on the *6,912 Nozzle Rainfall Project,* at the Center for Technology in Holon, affiliated with Tel Aviv University, Tel Aviv, Israel.

1995 visiting Designer Lecture on the *6,912 Nozzle Rainfall Project,* at the Technion University, Haifa, Israel

1997 Slide and video presentation on the *6,912 Nozzle Rainfall Project* at the 1997 meeting of the International Society of Electronic Arts, at the Art Institute of Chicago, Chicago, Illinois.

Grants

1974 Research Council, University of South Florida, one *semester release* from teaching

1979 NEA, Public Media, co-author for film conference

1979 Computer Center, U. of Wisconsin-Milwaukee, $1,000

1979 Computer Center, U. of Wisconsin-Milwaukee, 40 hours graphics computer time

1979 Wisconsin Arts Board, $4,800 for programming water driplet defined graphics in 3-D

1980 Graduate School, U of Wisconsin-Milwaukee, $4,000, software development of metamorphosing water droplet defined images in 3-D

1980 NEA, Design Arts, $10,000 Project Fellowship, design of a manufacturable computer controlled discrete water droplet valve

1983 Special Equipment Grant, Digital Equipment Corporation, $37,000 Computer

1983-84 Graduate School, U. of Wisconsin-Milwaukee, 2/3 release time for one academic year and paid graduate research assistant

1984 NEA, Design Arts $10,000 Project Fellowship, for the design of the modular valve and electronics for the programmable free falling water droplet fountain.

1985 Milwaukee Arts Foundation, $250 for wind sculpture with composer Yehuda Yannay

1987-88, Graduate School, U. of Wisconsin-Milwaukee, Sabbatical, one year leave for work on the programmable free falling water droplet fountain. Funding at this time was only 50% salary for the year.

1988, IBM gives indefinite loan of $12,000 PS 2, Model 70 with 8714 high resolution color graphics monitor.

1989, Pixor software site development grant of Renderman software.

1990, $122.000.00 grant from Kohler Company for building 6,912 nozzle fountain. The grant provided 2/3's release time for me, 2 Engineering Research Graduate Assistants and one Academic Staff position. The fountain was completed on schedule and has operated successfully at six shows for the Kohler Company in Las Vegas, Atlanta and Chicago.

1992-93 academic year, retraining grant in computer graphics from the University of Wisconsin System. The grant awards full salary for my time for the year to study computer graphics.

1995-96, Graduate School, U. of Wisconsin-Milwaukee, Sabbatical, one year leave for work on computer graphic drawing and time to travel and study. Funding at this time was only 65% salary for the year.

1996-97, UW System, Lab Mod Grant for $133,000 to up-grade the Mitchel 349 Art Department Computer Lab. I wrote the grant and specified and ordered all of the software and equipment including a file server, 22 computers and three printers. I retained Information and Media Technology at UWM to install a Novel Network and Telecommunication Services to install the network wiring.

1997-98, Educational Technology Grant awarded for $197,000 over two years to install a General Access Lab for the Art Department and the School of Fine Arts. I co-wrote the Grant with John Grozik from Information and Media Technology at UWM.

Additional Contributions for the Rainfall Project

Digital Equipment Corporation
IBM Corporation
Formica Corporation
Standard Micro Systems Corporation
Sprague Electronics Corporation
RCA Corporation
Texas Instruments Corporation
Deltrol Controls Corporation
Milwaukee Valve Corporation
Allen Bradley, Milwaukee, Wisconsin
Motorola, Chicago, Illinois
AMD, Advanced Micro Devices
Exacto Springs, Grafton, Wisconsin
Carol Cable Corporation

Awards

1983 "Design Excellence Award," one of ten annual awards from the Industrial Designers Society of America, a best designed products national competition, award was presented for Research

Publications

1977 *Tampa Times,* newspaper article featuring a cover story in the *Weekender,* a Sunday magazine insert, about the 64 nozzle fountain and its capabilities, November 19, p. 2d-3d.

1980 *The Milwaukee Journal,* newspaper article in section called *Spurt,* titled, *New direction for Fountains?,* September, p. 4.

1980 *Milwaukee Sentinel,* article in *Studio/gallery* section of the newspaper titled, *Pevnick's Rainfall, a Niagra of Thought, Work,* a review of the 64 nozzle fountain and its water effects after a studio visit by the critic, July 4.

1981 *Benzene Magazine,* two page article on the 64 nozzle computer run valve and the first metamorphosing strobe lit free falling water droplet defined 3-D forms, Summer-Fall issue, p. 42-43.

1981 *Wisconsin Directions III; the third dimension,* catalogue on the jured sculpture exhibit at the Milwaukee Art Museum, February

1981 *Research Profile,* quarterly article *"Rainfall," a computer Sculpture,* an article about the 64 nozzle fountain and its potential, Fall issue, p. 14-15.

1981 *Milwaukee's Fountain Program,* mentioned in the introduction to the book as part of the future.

1983 *The Graduate School profile,* included in quarterly article on *Researches,* a profile of five people, January, p. 18-19.

1983 *Industrial Design,* magazine, article titled, *Product Portfolio,* about the ten "1983 IDSA Design Excellence" award winners, November-December, p. 52.

1984 *CADRE,* conference catalogue, article about the installation of the 576 nozzle fountain in Silicon Valley at the conference on computer in art and design, January, p. 74.

1984 *Milwaukee Magazine,* article in monthly *Insider* section, called *Futuristic Fountain,* about the 576 nozzle valve and its related water droplet effects, September, p. 14.

1984 *Omni Magazine Japan,* four page article on the 576 nozzle valve and the metamorphosing free falling water droplet defined 3-D graphics, March, p. 54-57.

1984 *Innovation,* the quarterly journal of the Industrial Designers Society of America, article titled, *The Rainfall Project,* about the 576 nozzle valve and its potential as a

technical evolutionary step in the history of fountains, Winter, p. 18-19.

1984 *The UWM Report*, article titled, *Pevnick's Fountain Draws Attention*, is about the 576 nozzle valve and its water effects, December, p. 5.

1985 *Industrial Design Excellence*, book of the 50 best designs in the United States in the first half of the decade by the Design Foundation, Washington, D.C.

1986 *Design Perspectives*, general *Resources* section, about Kindergym toy designed for Globe Toys, January.

1986 *Fine Arts*, a quarterly of the Washington University School of Fine Arts, titled *Stephen Pevnick*, is about the design of the 576 nozzle valve and its potential as a tool for artists, p. 10.

1987 *The Milwaukee Journal*, newspaper, Metro Section front page article titled, *A Fountain of Ingenuity*, Section B, p. 1, September 3.

1987 *Wisconsin Architect*, magazine article, titled *The Fountainhead*, article on the evolution of the modular 2,304 nozzle valve and its programmable graphics, March, p. 18-19.

1987 *Industrieel Ontwerpen*, magazine article, *Rainfall Project: Fontein als Beeldscherm*, about the 2,304 nozzle modular valve and its urban public implications, April, p. 22-23.

1987 *Experimental Musical Instruments*, article titled, *Wind Suck*, a sound sculpture in collaboration with composer Yehuda Yannay, June, p. 16-17.

1988, *An Art Journal, Dialogue*, November/December, about the 2,304 Nozzle Rainfall Project music interface installation at the Music and Art Festival at Bowling Green State University in Ohio. Text and one black and white photograph are in the article.

1988, *Chicago* magazine, May issue, color photo and half page text on the installation of the 2,304 Nozzle Rainfall Project at the International Art Exposition at Navy Pier in Chicago.

1988, *Chicago Life*, May/June issue, about the 2,304 Nozzle Rainfall Project. Text mentions the fountain at the art expo.

1989, *Espace, Sculpture*, June/July issue, about the 2,304 Nozzle Rainfall Project. Text and one black and white photograph are in the article.

1989, *Exhibit Builder*, September/ October issue, about the 2,304 Nozzle Rainfall Project Installation at the Kohler Exhibit at the 1989 National Association of Home Builders Exhibit in Atlanta, p. 6- 10.

1990, *Kunstforum, International Edition, DerSpring-brunnen* titled article in German language with black and white and color photographs is six pages long. The edition was assembled by the *ARS Electronica* staff in Linz, Austria.

1990, *LAN, Local Area Network* magazine, April issue, three page article with black and white and color photographs.

1991, *Popular Science Magazine*, January issue, half page color picture with short write up in What's New section.

1991, *Nikkei Select Products*, February issue, quarter page article with

1991, *Nikkei Select Products*, February issue, quarter page article with small black and white photograph published in Japanese language.

1991, Book, *Artificial Reality II*, by Myron Kreuger, quarter page text and black and white reproduction of

drawing. The book is about Artificial Reality computing and its potential in the Arts.

1992, *Wisconsin*, the Milwaukee Journal Magazine, August 23, one half page article with two color reproductions of the *6,912 Nozzle Rainfall Project* in my lab at UWM.

1992, *Exhibitor Magazine*, July issue, *Recovery Strategies* p.50- 52, two color photographs of 2,304 Nozzle Rainfall Project and mention of the fountain as Kohler's fountain. Second article, P63- 65, *Most Memorable Exhibit of 1991* over 100,000 square feet mentions "eye catching waterfall."

1992, *Milwaukee Journal, Wisconsin Magazine*, p. 22, half page article and color photograph by Dave Hendrickson.

1995, *Art Mussel Magazine*, December/ January issue, *Tooling Through Space*, article about Tom Defonti and Dan Sandine's Cave, virtual reality environment, the Rainfall Project' 6,912 nozzle fountain, Bruce Beardsly's sculpture and Rob Fisher's stereo visual presentations of his sculpture.

1996, *Jerusalem Post*, p. 6- 7, double half page article, Thursday, Jan 25, 1996, Features Section "Computer-fountain makes a splash," by Jessica Steinberg, with photograph in black and white.

1996, *Architectural Record Lighting Supplement*, p. 18-21, five page article with color photographs, Nov. 1996, Nayana Carrimbhoy, fountain described among with several other features in the Centennial Olympic Park for the Atlanta Summer Olympics.

1996, *Milwaukee Journal Sentinel*, section 8B, quarter page article, with color picture, June 19, 1996, Encore, People columns and Review Events, "UWM professor's

flashy "Rainfall" will bask in Olympic spotlight," by James Auer.

1996, *UWM Today*, p. 12, full page article with two black and white photo, Fall 1996 (quarterly), "UWM professor makes a big splash at the Olympics," by Beth Stafford.

1996, Design Facts, p. 150, Article titled "Modeling in the Office," by Richard Mandel, Sept 1996, color picture of fountain p. 153, in article comparing similar control design applications.

Video and Film

1974 *Grass and Slip-knot*, 3 minute 16mm. color film with sound track score by John Mizelle and string bass by Diana Gannet. The camera work for the film was done by Charles Lyman.

1986 *Computer run fountain*, 47 minute video, 3/4 inch U-matic format. produced for MATA, the Milwaukee Area Telecommunication Authority, about the 576 nozzle valve and the beginning of the construction of the 2,304 nozzle valve.

1987 *Rainfall Project*, 7 minute video, 3/4 inch U-matic format, assembled for ABC News and the Smithsonian Museum. A document of the 2,304 nozzle fountain running in October, 1987.

1987, *Front Line Wisconsin*, Narrated visit to Pevnick's studio by WMVS TV 10/36 PBS in Milwaukee. The 10 minute tape is in 3/4 inch U-matic and Sony High-band 1/2 inch formats.

1988, *The Fountain Installation*, at the International Art Exposition at Navy Pier in Chicago. 16 minute 3/4 inch U-matic video.

1988, *Pevnick Interviewed*, by WPWR TV in Chicago. 16 min. 3/4 inch U-matic video format.

1988, *Fountain and Music,* by WBGU TV PBS in Bowling Green, Ohio. Narrated tape with interview of Pevnick and his collaborators, Ray Bills, computer science student and Yehuda Yannay, composer and Professor of Music at UW-Milwaukee, while at the Music and Art Festival in Bowling Green.

1989, *Computer Controversies,* two 1/2 hour cable programs of Pevnick interviewed by Dr. Leonard P. Levine, Professor of Computer Science at UW- Milwaukee.

1989, *Programmable Free Falling Water Droplet Fountain,* 28 minute video, 3/4 inch U-matic format, of the 2,304 nozzle fountain with philosophical narration.

1990, *Rainfall Project,* incorporates video by WMVS-TV 10- 36 PBS, Milwaukee, The Rainfall Project at Navy Pier, Pevnick Interviewed by WPWR- TV 50, Chicago and Rainfall Project Installation at IBM Exhibit at the Illinois State Fair in Springfied and is edited by Michael Callahan.

1992, The *6,912 Nozzle Rainfall Project* at the 1992 National Association of Home Builders show sponsored by the Kohler Company. High eight millimeter video by Stephen Pevnick and edited by Jerry Fortier.

1992, *Video Presentations of the 1992 International Sculpture Center Conference* in Philadelphia. The *6,912 Nozzle Rainfall Project* at the National Association of Home Builders show in Las Vegas is one of about twenty five three minute shorts which make up this tape for sale through the International Sculpture Center, Washington D.C.

1993 *Video demonstration for Anheuser Busch,* video tape of the *6,912 Nozzle Rainfall Project* made of a water graphic sequence for Anheuser Busch Corporation, both Amusement Parks Company and their Creative Services Company.

1994, *Video of the NAHB Las Vegas Kohler show,* video tape of the *6,912 Nozzle Rainfall Project* at the National Association of Home Builders show in Las Vegas. The color tape is 13 minutes long.

1995, *Video of the Emirates Airlines Exhibit,* Earls Court, London, England. The video is about 15 minutes long.

1995, *Summer Olympics,* Video of the Anheuser Busch Exhibit at the in Atlanta, Georgia showing the 12 ft. Linear Rainfall Fountain installed.

1995, *GM Cadillac,* Video of the Cadillac installation of the 12 ft. Linear Rainfall Fonain installed at the reveal of the Catera in Palm Beach, Florida.

1996, *Video of the Emirates Airlines Exhibit,* Messe Convention Center, Berlin, Germany. The video is about 15 minutes long.

1997, *Seven Short Videos,* 2.5 to 3 minute video sections show the matrix and linear versions of the Rainfall Project fountains

APPENDIX BB

REFERENCE TO LODGING

Appendix BB, Usher's Photographs of MDC's Ultrasonic Testing Nozzle Provided to Usher's (2 color pages), is filed separately with this Appendix as Lodging II.

APPENDIX CC

REFERENCE TO LODGING

Appendix CC, Drawings of MDC's Testing Nozzle (2 pages), is filed separately with this Appendix as Lodging III.

APPENDIX DD

REFERENCE TO LODGING

Appendix DD, Photographs of Usher's Prototype Nozzle (2 color pages), is filed separately with this Appendix as Lodging IV.

APPENDIX EE

REFERENCE TO LODGING

Appendix EE, Usher's Drawing of its prototype (1 page), is filed separately with this Appendix as Lodging V.

APPENDIX FF

Ex. F.

[Received AUG 28 1998]

UNITED STATES DISTRICT COURT

Eastern District of Missouri

No. 4:97CV01913 SNL

Ronald S. Deichmann
&
Usher's WaterWorks

vs.

Boeing Co.

Aug. 28, 1998

MEMORANDUM FOR CLERK

REQUEST FOR LEAVE TO FILE LEGAL OPINION OF EXPERT WITNESS

Comes now Plaintiffs and through Counsel hereby requests to file legal opinion of expert witness.

Respectfully submitted,

/s/ Henry W. Cummings

[Certificate Of Service Omitted In Printing]

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MISSOURI
EASTERN DIVISION

Ronald S. Deichmann, and
Usher's WaterWorks, Incorporated

v. Cause No. 4:97CV01913SNL

Boeing Company having an office in Missouri
at Airport Rd. and McDonnell Blvd., St. Louis, MO 63146, formally McDonnell Douglas Corporation

FACTS AND OPINIONS OF EXPERT WITNESS

I BACKGROUND FACTS

1. My name is Charles R. McManis.

2. I am Professor of Law at Washington University, St. Louis, Mo.

3. My background and credentials are attached as Exhibit A.

4. As can be seen from Exhibit A, I have been teaching, writing, and consulting in the area of intellectual property and unfair trade practices for the past 25 years.

5. I have reviewed documents supplied to me by Attorney Henry W. Cummings including documents produced by Plaintiff Usher's WaterWorks and Ronald S. Deichmann and by Defendant Boeing Co., some of which were marked CONFIDENTIAL and others marked CONFIDENTIAL. ATTORNEYS AND EXPERTS ONLY.

6. Likewise, I have reviewed, and incorporate by reference, as the basis for my own expert opinions,

the BACKGROUND FACTS and CHRONOLOGICAL FACTS contained in the FACTS AND OPINIONS OF EXPERT WITNESS Stephen Pevnick.

II OPINIONS

7. On the basis of Professor Pevnick's statement of CHRONOLOGICAL FACTS, numbered 3-13, and the attached exhibits, I conclude that Plaintiff Usher's WaterWorks and McDonnell Douglas Corporation (the assets and liabilities of which were, upon information and belief, subsequently acquired by Defendant Boeing Company) entered into two valid and enforceable contracts.

8. The first contract was a contract of confidentiality, entered into on or about August 10, 1989 (Professor Pevnick's statement of CHRONOLOGICAL FACTS #s 3-4 and Exhibit B).

9. Pursuant to the foregoing contract, Plaintiff Usher's Waterworks disclosed certain information which Defendant McDonnell Douglas Corporation agreed to maintain in confidence and not disclose to any third party nor use for any purpose other than to evaluate Usher's "coherent flow" or "laminar flow" nozzle for possible use by McDonnell Douglas Corporation in its products. Further, Defendant McDonnell Douglas Corporation specifically agreed that, subject to the provisions of Paragraph 2 of the confidentiality agreement of August 10, 1989, all proprietary rights (including, but not limited to, patent rights and trade secrets) in and to the disclosed information were to remain the property of Usher's WaterWorks.

10. The second contract was entered into on or about February 28, 1990 (Professor Pevnick's statement

of CHRONOLOGICAL FACTS #s 6-8 and Exhibits E, F, G, and H and Purchase Order No. V00344).

11. A term of the second contract was the following provision, set forth both in request for Quotation #DLF1089-02. dated Oct. 30, 1989, to then President of Usher's WaterWorks, Dave Usher, and signed by Rich Lawson, Unit Chief-Automate Systems, and Fred Courtney, Purchasing Agent, for McDonnell Aircraft Company (MCAIR) (see Professor Pevnick's statement of CHRONOLOGICAL FACTS # 6 and Exhibit E) and in SPECIAL TERMS AND CONDITIONS, Attachment of MDC Form 858, SPECIALTY NOZZLE PURCHASE AGREEMENT, dated January 29, 1990, and signed by then Vice President and General Manager of Usher's WaterWorks, Plaintiff Ronald S. Deichmann:

> All phase I Development will be considered as co-owned by MCAIR and Usher for use in ultrasonic inspection applications. Prior to Phase II, MCAIR and Usher will determine any licensing agreements for marketing nozzles to other companies.

12. By the foregoing term Plaintiff Usher's WaterWorks and Defendant McDonnell Douglas Corporation became co-workers of that portion of the valuable trade secret information disclosed pursuant to the contract of confidentiality entered into on or about August 10, 1989 (see Professor Pevnick's Exhibits B, C, and D) that was used in phase I Development, as defined in Defendant McDonnell Douglas Corporation's Request for Quotation # DLF 1089-02, dated Oct 30, 1989.

13. In appropriate cases, courts may supply implied terms to express agreements otherwise silent on certain points; the nature of the underlying transactions or relationships generates terms which the court finds implied. 1 MILGRIM ON TRADE SECRETS § 4.03.

14. Courts will also grant to trade secret owners injunctive or other relief "by operation of law" where: 1) a trade secret exists; 2) a relationship exists between two parties pursuant to which the owner's trade secret may become known to the other party; 3) the other party has knowledge of the trade secret; 4) the other party has knowledge or notice that the trade secret is regarded as valuable property which is not to be used outside of the relationship; and 5) the trade secret is used by or disclosed to one who is not the owner to the potential or actual detriment of the owner. 1 MILGRIM ON TRADE SECRETS § 3.01.

15. Where all or almost all of the foregoing conditions are present in a dispute between the parties, courts may afford protection to the owner by finding either 1) that the disclosure is in breach of an implied contract which, by operation of law, is projected upon the relationship between the parties, or 2) the wrongful disclosure and use is in breach of the duties arising from a confidential relationship. 1 MILGRIM ON TRADE SECRETS § 3.01.

16. The existence of a confidential relationship, arising prior to or concurrent with disclosure of a trade secret, imposes an absolute (as opposed to relative) duty not to use or dislose the secret, and may impose upon the disclosee a duty to act and to contract in a conscionable manner, even where

the owner's contractual protection proves inadequate due to faulty definition of the matter to be protected. 1 MILGRIM ON TRADE SECRETS § 3.03.

17. In determining the duties imposed by the existence of a confidential relationship, the courts commonly invoke the law of trusts and agency; and while they tend to chraacterize a given relationship as being a "fiduciary" one, or one of confidence, without giving reasons for their conclusions, lawyers and judges alike have a fairly uniform reaction to the type of relationship which should be characterized as "confidential." 1 MILGRIM ON TRADE SECRETS § 3.03.

18. The law of trusts imposes upon a party to a fiduciary relationship various equitable duties to deal with the property for the benefit of the other person, including a duty not to profit at the expense of the other. 1 RESTATEMENT OF TRUSTS (SECOND) § 2 (1959).

19. The law of agency imposes upon a party to an agency relationship, including a partnership relationship, a duty not to use or communicate information confidentially disclosed to the injury of the other. 2 RESTATEMENT OF AGENCY (SECOND) § 395 (1958).

20. While a co-owner of a patent may, in the absence of an agreement to the contrary, make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention within the United States, or import the patented invention into the United States without the consent of and without accounting to the other own-

ers, 35 U.S.C. § 262; 5 LIPSCOMB'S WALKER ON PATENTS § 19:39? Milgram v. Jiffy Equipment Co., 247 S.W.2d 668, 672 (Mo. 1952), Missouri law specifically recognizes that the "use of a patent is unlike the use of any other personal property and the general principles applicable to the co-ownership of ordinary chattels do not apply to patents." 247 S.W.2d at 672.

21. In contrast to the rule with respect to co-owners of a patent, a joint owner of a copyright may not unilaterally license a joint work in such a manner as to cause the destruction of the work and is under a duty to account to the other joint owners of the work for a rateable share of the profits realized from his use or licensing of the work. 1 NIMMER ON COPYRIGHT § § 6.10, 6.12.

22. The foregoing rule, imposing a duty of co-owners of copyright to account for profits, is justified on a theory of depletion—namely that use of the work by one joint owner will generally not destroy its value to the other joint owner, but its use in contemporary media will deplete the residual value that remains to be tapped by the non-using joint owner. 1 NIMMER ON COPYRIGHT § 6.12; Note, *Accountability Among Co-owners of Statutory Copyright*, 72 HARV. L. REV. 1550, 1557, 15559 (1959).

23. Under the foregoing rule, imposing a duty of co-owners of copyright to account for profits, the co-owner will be ordered to account, not as an infringer but as a trustee, Shapiro, Bernstein & Co. v. Jerry Vogel Music Co., 223 F.2d 252, 254 (2d Cir. 1955) (the "12th Street Rag" case), with the result that, in any instance of co-ownership it will be

possible to impose a constructive trust in favor of a co-owner, and that in fact a fiduciary relationship exists between co-owners of a copyright when dealing with the jointly owned property. Comment, *Problems in Co-ownership of Copyrights,* 8 UCLA L. REV. 1035, 1043-44 (1961).

24. Because state trade secret law provides "far weaker protection in many respects" than federal patent law, *see* Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 489-90 (1974), co-owners of trade secrets are more similarly situated to co-owners of copyright than they are to co-owners of patents, and should thus likewise be held to a fiduciary duty 1) not to license or use the co-owned trade secret in such a manner as to destroy or deplete the value of the trade secret to the non-using co-owner without the express consent of the co-owner, 2) to compensate the co-owner for any lost value or expectancy arising out of a use or license constituting a breach of the foregoing duty, and 3) to account for any profits made by such use or license.

25. For the foregoing reasons, Defendant Boeing Company, formerly McDonnell Douglas Corporation, owed a duty, arising either out of contract or by operation of law, to Plaintiff Usher's WaterWorks 1) not to use or license any Phase I Development in any manner, including publication in an issued patent, that would destroy or deplete the value of the trade secret to Usher's WaterWorks without first obtaining the express consent of Usher's WaterWorks, 2) to compensate Usher's WaterWorks for any lost value or expenctancy arising out of a use or license constituting a breach of the foregoing duty, and 3) to account for any profits arising out of any such use or license.

Resume

CHARLES R. McMANIS

Title: Professor of Law, Washington University, St. Louis, Missouri.

Address and Telephone:

Washington University School of Law, One Brookings Drive, Campus Box 1120, St. Louis, MO 63130.

E-mail: McManis@wulaw.wustl.edu

Telephone: Office: (314) 935-6448 Home: (314) 727-7584

Education:

Birmingham-Southern College, A.B., 1964
Duke University, M.A., 1972
Duke University, J.D., 1972

Academic Honors and Awards:

Duke Scholar; NDEA Fellow; Order of the Coif; Note & Comment Editor, *Duke Law Journal*; Member, American Law Institute; Fulbright Fellow, 1993-94, International Intellectual Property Training Institute, Taejon, Korea.

Teaching Experience:

Present: Professor of Law, Washington University, St. Louis, Missouri. Associate Professor from 1978-81.

1977-78: Associate Professor of Law, Louisiana State University, Law Center, Baton Route, Louisiana.

Fall 1976: Visiting Associate Professor, Vanderbilt University, School of Law, Nashville, Tennessee.

1973-77: Assistant Professor, University of Georgia, School of Law, Athens, Georgia.

Currently Teaching:

Torts, Advanced Torts, Copyrights and Related Rights, Patents and Trade Secrets, Unfair Trade Practices.

Courses Previously Taught:

Administrative Law, Antitrust, Entertainment Law, Insurance, Securities Regulation, Legal Reasoning and the Rhetorical Tradition (Seminar).

Main Relevant Publications:

Books:

International Intellectual Property Law (with Kenneth Port and others) Carolina Academic Press (forthcoming).

The Law of Unfair Trade Practices in a Nutshell West Publishin Company, 3rd edition (1993).

Chapters:

"Patent Law," (with John Kepler) *West's Federal Practice* 3d edition (forthcoming).

Articles:

The Privatization (or "Shrink-wrapping") of American Copyright Law, *California Law Review* (forthcoming).

Intellectual Property and International Mergers and Acquisitions, *University of Cincinnati Law Review* (forthcoming).

The Interface Between International Intellectual Property and Environmental Protection: Biodiversity and Biotechnology, 76 *Washington University Law Quarterly* 255 (1998).

Taking TRIPS on the Information Superhighway: International Intellectual Property Protection and Emerging Computer Technology, 41 *Villanova Law Review* 207 (1996).

The Interface between International Intellectual Property and Environmental Protection, *Nihon University Journal of Business Research* (1995).

Introduction, Special Issue: Intellectual Property in East Asia, 13 *UCLA Pacific Basin Law Journal* 1 (1994).

Intellectual Property Protection and Reverse Engineering of Computer Programs in the United States and European Community, 7 *High Technology Law Journal,* Number 3 (June, 1993).

Intellectual Property Protection and Reverse Engineering of Computer Programs in the United States, 9 *Comparative Law* 131 (Nihon University, Tokyo, Japan, 1992).

International Protect

International Protection for Semiconductor Chip Designs and the Standard of Judicial Review for Presidential Proclamations Issued Pursuant to the Semiconductor Chip Protection Act of 1984, 22 *George Washington Journal of International Law & Economics* 331 (1989).

Satellite Dish Antenna Reception: Copyright Protection of Live Broadcasts and the Doctrine of Anticipatory Infringement, 11 *Columbia-VLA Journal of Law and the Arts* 387 (1987).

Questionable Corporate Payments Abroad: An Antitrust Approach, 86 *Yale Law Journal* 215 (1976).

Professional Organizations and Recent Professional Activities:

Member, American Law Institute, since 1989.

Member, International Association of Teachers and Researchers of Intellectual Property, since 1986.

Member, Georgia Bar Association, since 1975.

Fulbright Fellowship, International Intellectual Property Training Institute, Taejon, Korea, 1993, 1994.

Moderator, Conference on East Asian Intellectual Property, held in February, 1994, at Washington University, proceedings of which are publishe in the Fall, 1994, issue of the *UCLA Pacific Basin Law Journal.*

Consultant for the World Intellectual Property Organization: Training Course on Patents and Industrial Designs, University of Delhi, July, 1997; International Intellectual Property Training Institute, Republic of Korea, December, 1990, September, 1991; Regional Symposium on Intellectual Property Law Teaching and Research, Beijing, People's Republic of China, November, 1987.

Exchange Professor, Yonsei University School of Law, May 1997; Sichuan University, Chengdu, People's Republic of China, May-June 1989.

Visiting Lecturer, Nihon University College of Law and College of Economics, and Japan Institute for International Business Law, May 1991, July, 1993, 1994, 1996; East-West Center, University of Hawaii, July, 1994.

EXHIBIT A

UNDERTAKING

The undersigned has read the attached Protective Order, understands its contents, and hereby acknowledges and agrees that he/she will not disclose all or any part of the Confidential Information, as that term is defined in the attached Protective Order, to any person and/or entity who is not permitted to have access to such Confidential Information under the terms of the Protective Order. In addition, the undersigned hereby acknowledges and agrees that he/she will not use any of such Confidential Information for any purpose whatsoever other than in connection with this litigation. The undersigned further agrees either to return all Confidential Information disclosed and/or supplied by any party, directly or indirectly, and all copies and reproductions thereof and all notes or other transcriptions made therefrom, to the party producing the Confidential Information, or to destroy and to certify the destruction of all copies of any and all materials containing all or any portion of the Confidential Information, including any notes or other transcriptions made therefrom, within thirty (30) days of the conclusion of the litigation and any appeals thereof. The undersigned understands that a violation of this undertaking may be actionable and punishable as, among other things, contempt of court.

/s/ Charles R. McManis

Name

450 Melville Ave. 727-7584

Home Address & Phone Number

Law Professor

Occupation

Washington University

Employer

Professor Of Law

Job Title

APPENDIX GG

REFERENCE TO LODGING

Appendix GG, MDC Patent Disclosure (9 pages), is filed separately with this Appendix as Lodging VI.

APPENDIX HH

REFERENCE TO LODGING

Appendix HH, MDC INNOVATE Bulletin (3 pages), is filed separately with this Appendix as Lodging VII.

APPENDIX II

EXCERPTS FROM DEPOSITION OF RONALD S. DEICHMANN

[November 25, 1998]

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particular project be one of the nozzles that you drew in Defendant's Deposition Exhibits No. 23 or 24?

A: No. There was a– Well, yes and no. A and C were in that project; B was not. Because of size constraint, B was not used. A more rectangular shape, a narrower shape was used to fit in the device that it had to fit inside. So. Drawing A and Drawing C were, but not B.

Q: And do you believe it's one of these depictions, A or C, one of these models that was shown to McDonnell Douglas at that first meeting?

A: No. It would have been a straight stream-type nozzle like B. So I imagine it would have been the more rectangular-shaped device.

Q: Do you recall what you showed them at that meeting?

A: Not really. I remember us going through the– What we used to spray the water was on a loading dock. We just shoot it off the dock so that we weren't standing in water. I remember standing there. I don't remember what nozzle we used that day.

Q: You believe it was something in the order of the design of design B on Defendant's

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Deposition Exhibit No. 23?

A: It would have been that type of nozzle, straight stream, but not that shape. It would have been a– I feel like it would have been a rectangular-shaped nozzle at that time.

Q: Did any of these three individuals have an opportunity to take a closer look at the nozzle?

A: I don't remember us doing anything but spraying the water, having discussion. I don't feel like we looked at any components or took anything apart. It was pretty early on in the discussions. I don't recall we would have gone that direction that early, but I don't remember.

Q: Did you believe there was anything confidential about the design of Defendant's Deposition Exhibit No. 23 or I should say Drawing B– the design of Drawing B which is depicted in Defendant's Deposition Exhibit No. 23?

A: I feel like what we showed them was confidential.

Q: What aspects of what you showed them did you believe was confidential, if any?

A: Everything, the knife edge orifice, the foam member for the water to come through, the air chamber, the–

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Q: Do you know if this was before or after the purchase order was issued by MDC?

A: I feel like it was after because I think that may have been the meeting where he gave me the nozzles to detail the base. There wasn't any drawings of the nozzles they were using. So he gave me one of each type so that we could get the

mounting base and the sizing correct.
Q: So the geometry for the prototype that Usher's eventually produced was based upon the nozzles that Mr. Lawson provided you?
A: No. The geometry was our design. The geometry of the base to mount the nozzle was their design.
Q: So the next sequence after the meeting at Usher's where you received these business cards apparently– the next thing you remember was a lunch with Mr. Lawson?
A: We had a meeting at lunch one time. We had a meeting at– I want to say his office, but I don't think he had an office. Maybe it was a cubicle. I don't remember the sequence of that.
Q: Was this before or after you produced the prototype?
A: I think that may have been after the

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prototype.
Q: Now, in your complaint, Mr. Deichmann, you allege that there were at least four meetings. You've described three now, a meeting where you apparently received these business cards, a lunch with Mr. Lawson, a meeting at Mr. Lawson's office. Do you recall a fourth meeting?
A: Well, there was the meeting where we ran the nozzle, and it seems like there was another meeting at our facility. I just– I don't remember the people or the sequences of events at all.
Q: Another meeting at Usher's facility may or may not have occurred; you don't recall?
A: I don't recall. But it seems like once we had some of the components done, we met again,

but I don't really remember the specifics of that.
Q: The meeting at Mr. Lawson's office, do you recall why that meeting took place?
A: No, I don't.
Q: Do you recall the sequence of that meeting? Was it before or after the prototype was prepared by Usher's Waterworks?
A: I don't remember. I feel like it was after the prototype was done.

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Q: Do you remember anything about that meeting, any dialogue that may have taken place, any emotions or expressions that you may have expressed or that Mr. Lawson may have expressed?
A: No, I don't.
Q: Was there anyone else present at that meeting at Mr. Lawson's office other than yourself and Mr. Lawson?
A: No.
Q: Was there anybody else present at the meeting with Mr. Lawson at lunch at the Bombay Bicycle Club?
A: No.
Q: Was there– Now, the fourth meeting, let's go into a little more detail about this. You indicated that there was a meeting where you ran the nozzle.
A: Right.
Q: Where did this meeting take place?
A: It took place at McDonnell Douglas. I don't know what building numbers or anything it would have been, but Mr. Lawson had me meet him at a security desk. We took the nozzle in to what I believe is where they tested components. There was– I don't know. There was a plane and some

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kind of a fixture that was flexing the wings. Maybe it wasn't a complete wing. But there was a fuselage and wings. There was an area where they had components on carts to run through the ultrasonic testing machine. There was an ultrasonic testing machine. There was like a computer lab, like a glass office computer lab, next to the machine. We bolted the– bolted my prototype on one side of the machine.

Q: Who did the bolting?

A: It was– I couldn't tell you his name, but I remember it was a problem because it had to be a union guy that bolted the machine– bolted the device in place. For some reason, aerospace or whatever union rule came into play, it had to be– somebody else had to come and install the device to the arm.

Q: Who else was present at this meeting from Usher's Waterworks?

A: No one.

Q: Other than Mr. Lawson and this union guy, was there anybody else present from MDC?

A: I feel like that was the second time that I had met Mr. Burr. I think he was there.

Q: You feel like. Are you certain he was

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there?

A: I'm certain he was there. I'm certain he was one of the guys at a console– key pad.

Q: He was at a key pad. Now, you– did you bring this prototype in in a container or did you–

A: No.

Q: –bring it in freehanded? How did you

bring it into the facility?
A: A briefcase, I think.
Q: You're not sure how you brought it in?
A: I carried it in in a briefcase.
Q: Are you sure of that?
A: Relatively sure.
Q: Okay. You carried the prototype in in a briefcase. What was the next thing you did with that prototype when you came into the facillty?
A: Met Rich, I think, at that security desk. I think he had to walk out, get me. We had to walk back into the facility. They handled it, fondled it, bolted it on.
Q: They being whom?
A: They being– There was several people in the– at this that I don't know and didn't know then.

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Q: What was the purpose of these individuals, who you don't know or who you don't recall who was there, their sole purpose, to help bolt this onto the ultrasonic testing equipment?
A: No. I think they came to see the test. There was the one guy they called in to do the bolting, the technician-type guy.
Q: So it's your testimony that you handed this prototype to Mr. Lawson?
A: I can't be sure.
Q: You can't be sure that Mr. Lawson ever handled the prototype, can you?
A: No. Mr. Lawson absolutely handled the prototype. In between the security desk and bolting on, I had it in my hands. He had it in his hands. He talked about it.

Q: Did he disassemble it?
A: It had more than one orifice. The orifices come on and off. There was a size requirement in the description. They needed three different size orifices. Those three orifices were loose. They're interchangeable. We had to mount a transducer into it. So he did not take it apart. It's glued together, but to install the transducer to install the orifice– It's a hollow

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tube. You can look through it. There's no mystery to looking in both ends of the– of it.
Q: And it's your testimony that he looked into it?
A: Absolutely.
Q: You don't recall who any of these people were, but you know absolutely that Mr. Lawson looked into this prototype?
A: I remember everyone there that I was introduced to.
Q: And you were only introduced to Mr. Lawson?
A: He was the only one there that I had any interface with. The other people–
Q: You weren't introduced to the other people?
A: I don't think so.
Q: So you have this vague recollection of several people being there. You weren't introduced to them. So the only person you know of who was definitely there was Mr. Lawson?
A: I'm sorry. I didn't mean to use the term vague. I have an absolute recollection that there

were other people in the room that I do not know.
Q: Do you know if Kondala Saripalli was

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there?
A: No, I have no idea.
Q: Have you ever been introduced to a Kondala Saripalli?
A: I have no idea.
Q: Have you ever met a Eugene Myers?
A: No idea.
Q: Have you ever met– Have you met Mr. Burr since this meeting at McDonnell Douglas Corporation?
A: I don't recollect any meetings other than that.
Q: You indicated that you had spoken with Mr. Burr on a second occasion. When was that second occasion?
A: I thought that was the meeting we were just talking about when we tested the device.
Q: So somebody hooked this up to the ultrasonic testing equipment and what happened?
A: They had one of their standard– the clear tapered nozzle on the other side, rotated them up to clear the air out of the nozzles, saw the streams, rotated them down, ran apart the data that they collected. It was on a screen. They felt like that data wasn't-

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Q: Did the nozzle produce a coherent stream?
A: Absolutely.
Q: Did Mr. Lawson indicate that he was pleased with the stream?
A: I think everybody in the room was– was pleased with the stream when they saw the stream.

Q: This everybody in the room, who are you referring to?
A: Anybody whose opinion I got.
Q: Okay. Whose opinions did you get?
A: Directly not very many, but I felt like there was agreement in the room that the stream was coherent. It went up in the air. It went higher than their stream.
Q: Who did you receive an opinion from at that meeting, Mr. Deichmann?
A: The only person that I really had much contact with was Rich Lawson.
Q: And what was Mr. Lawson's opinion at that
A: Mixed feelings. The data that they collected, he didn't feel, was usable.
Q: And you would characterize that as happy with the performance of the nozzle?
A: You asked what the opinion was when we ran

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the nozzle and people saw the stream.
Q: That's right.
A: And I feel like the opinion I got from other people was that that stream was—
Q: Now, you keep saying—
MR. CUMMINGS: Objection. He didn't finish his answer.
Q: I'm sorry. Were you finished?
A: I'm not sure. If you look at a stream and it looks better than the other stream, you have an opinion. That does not necessarily affect your opinion of the data that is collected.
Q: That's fine. But you— Let's step back. You indicated that you— You again indicated you received opinions from people who were present but unidentified, and I want to know who gave you

opinions and what opinions they gave you.
A: I felt like the opinions I was getting when the stream ran, when the two nozzles came on was that people were impressed with the stream.
Q: This was just your impression; nobody expressed an opinion to you?
A: I don't remember conversations. I don't remember any specific conversations.
Q: So you don't remember– Just to clarify

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this, you don't remember anybody telling you specifically that they were pleased with the stream that came out of the prototype nozzle that you developed?
A: No, I don't.
MR. ROODMAN: Off the record.
(Off the record.)
When did Mr. Lawson advise you that the data that was produced as a result of your prototype nozzle was insufficient?
A: The– At that same meeting, right after that we stepped into the– I would call it a computer lab, a glass enclosure around computers; and there was monitors, screens with images on them. They didn't feel like that data was usable.
Q: Okay. Prior to that, did Mr. Lawson express any opinion regarding the performance of the nozzle?
A: No. Mr. Lawson was having conversations with other people about the nozzle and the data that they were collecting.
Q: So the first opinion that he expressed to you was that the nozzle was inadequate?
A: That the data was inadequate.
Q: So the first opinion that he expressed to

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you was the data that was produced as a result of the nozzle was inadequate; is that true?
A: Right.
Q: Were there any other discussions during this meeting at McDonnell Douglas Corporation?
A: None that I recollect.
Q: Okay. Did you take that nozzle back with you?
A: Yes.
Q: Did anybody else see the nozzle while you were there?
A: Nobody that I know a name of, but there were other people there.
Q: Okay. Other than these other people who you don't know if– who they were, was there anybody else who you're aware of at McDonnell Douglas Corporation who ever inspected that prototype nozzle or saw that prototype nozzle?
A: No. Outside of that group, no.
Q: And other than on this one occasion, did you ever provide that prototype nozzle to MDC again?
A: I don't think so, no.
Q: Did you ever produce or prepare any drawings depicting any features of this nozzle for

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MDC?
A: I don't really remember any drawings, but if there was, it was to represent the size of the device for clearances, not– not–
Q: Not blueprints?
A: Not blueprints.
Q: Not working drawings?
A: Right.

Q: But that's pure speculation, right? You don't recall any drawings being made of this prototype nozzle?
A: No. I think I got drawings from them for the size.
Q: You're talking them as MDC?
A: MDC, right.
Q: And did Usher's Waterworks produce any drawings that depicted this prototype nozzle?
A: I don't think so.
Q: Did you test this prototype nozzle before you went out to MDC in this meeting?
A: Yes.
Q: Where did you test it at?
A: At Waterworks, Usher's.
Q: Who was present during this testing?
A: Possibly nobody. I don't remember anybody

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being at the testing.
Q: How many times did you test it at Usher's Waterworks?
A: Several. There was a couple of stages to make the nozzle. So I tested each stage.
Q: What was the first stage?
A: The first stage was essentially the stage that– the same design as what you've got. Just the way I took the water in and out, the device rotates on an arm that rises and falls, and getting the water in and out of the nozzle had to be something that moved around.
Q: Well, I'm sorry I'm confused. The first stage involved, you indicated, a nozzle that we have. What are you referring to?
A: I'm talking about the prototype nozzle that I built for McDonnell Douglas. All versions

of it were essentially what we've got.
Q: Who participated in the development of this prototype nozzle?
A: I worked out the design. I turned it on a lathe. I made the pieces. I went out and had the test.
Q: Did anybody other than yourself participate in the development of the nozzle?

* * *

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and information beyond his training and experience. Subject to that, if he has an idea, he can answer it; but it's his idea, not necessarily legally appropriate.
A: I have no knowledge of what it takes to be a coinventor.
MR. ROODMAN: I don't have any further questions at this time. I'll reserve the right, as I indicated before, to recall Mr. Deichmann for a deposition in the event that any further discovery produced by Usher's and/or Mr. Deichmann warrants recalling Mr. Deichmann.
On another issue, we will likely serve Usher's Waterworks with a notice of deposition under Rule 30(b)(6). I don't know if you're familiar with that, Mr. Deichmann.
A: No.
MR. ROODMAN: And Mr. Cummings, you and I will have to discuss how to handle that. Prior to today, we were not of knowledge that Mr. Deichmann was the person having the most knowledge regarding many of the issues that are relevant to this case. Otherwise, we would have noticed this deposition as both the 30(b)(6) deposition and an individual deposition of Mr. Deichmann trying to

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save time, money and efforts; but we can address that at a later time. In the event we can't agree to some type of a reasonable solution to that issue, we would have to recall Mr. Deichmann. It appears, of course, you can produce whoever you want who is most knowledgeable about the categories that we designated under the notice of Rule 30(b)(6). It may require you to reproduce Mr. Deichmann. But as far as this deposition of Mr. Deichmann is concerned, we have no further questions at this time. Do you have any cross?

EXAMINATION

QUESTIONS BY MR. CUMMINGS:

Q: You previously testified that there was a difference between the subject matter which you illustrated— Where's the one that you marked? Is this— This isn't the one that you marked. Is it under here?

MR. ROODMAN: Are you asking a question of me, Counsel?

MR. CUMMINGS: Yes.

MR. ROODMAN: What are you looking for?

MR. CUMMINGS: I believe you asked

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questions concerning this blue book previously.

MR. ROODMAN: That is true. I asked questions about Defendant's Deposition Exhibit No. 1.

MR. CUMMINGS: Are you sure that it was 1?

MR. ROODMAN: I know that's one of the exhibits I asked questions about, yes.

MR. CUMMINGS: Well, so that we don't make

any mistakes about this, it says November 6, '98, which was probably Lawson's deposition.
MR. ROODMAN: I'm sorry. You have– You don't have Defendant's deposition. You have Plaintiffs' deposition.
A: You have one also.
MR. ROODMAN: Would you like Defendant's deposition exhibits?
MR. CUMMINGS: Yes, I would because it will have the right number on it.
MR. ROODMAN: It's Defendant's Deposition Exhibit No. 6.
MR. CUMMINGS: All right. Let's take this one at a time. Strike what I previously asked for let's begin with tab number 1 of Defendant's Exhibit 6.

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Is this drawing here found in tab number 1 a drawing of the– one of the McDonnell Douglas devices which was provided to you by MDC personnel?
MR. ROODMAN: Objection, leading.
Q: You can answer.
A: Yes. That is a drawing generated by myself of the McDonnell Douglas nozzle.
Q: And further in tab 1, are these photographs of the McDonnell Douglas nozzle which you received from MDC?
A: Yes, they are.
Q: Now I'm turning to tab 2. Are these drawings in tab 2 photographs of another McDonnell Douglas prototype which you received from McDonnell Douglas?
A: Yes. The drawings and the photographs are of a nozzle from McDonnell Douglas.

Q: All right. Now turning to exhibit– tab 3, is this a drawing of the prototype which you provided to McDonnell Douglas?
MR. ROODMAN: Objection, leading.
A: Yes, that's the nozzle that I built and tested and provided for McDonnell Douglas.
Q: Further in tab 3, are these photographs of

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the prototype which you provided to McDonnell Douglas?
MR. ROODMAN: Objection, leading.
A: Yes, they are the photographs of the nozzle.
Q: My next question is: What is the difference between the prototype– What are the differences between the prototype nozzles which are provided in tab 3 as compared to the nozzles provided by McDonnell Douglas in tabs 1 and 2, the structural differences?
A: Both of the McDonnell Douglas nozzles are tapered. The Usher's nozzle is a cylindrical body. The orifices on both the McDonnell Douglas nozzles are tapered. The Usher's nozzle is a knife edge. There's a porous material that the water flows through annularly in the Usher's, not in the McDonnell Douglas nozzle. That's really the only differences, the main differences at least.
Q: All right. Now, I'm going to ask you to compare– By the way, is the structure illustrated in tab 3 an illustration and photographs of the prototype which you delivered to McDonnell Douglas?

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MR. ROODMAN: Objection, Leading.
A: Yes, they are the photographs and the drawing of the nozzle I delivered to McDonnell Douglas.
Q: Now, are you sure that you disclosed the structure of this concept to Mr. Lawson or other coworkers at McDonnell Douglas?
MR. ROODMAN: Objection, leading, vague and ambiguous.
A: I'm sure that the structure was disclosed. Both ends of the nozzle were opened. Transducer was removed. The orifice was removed. It was examined.
Q: By whom, if you recall?
A: Rich Lawson, I'm sure. Anyone else I'm not sure.
Q: All right. Now, I would like you to compare the structure illustrated in tab 3, the drawings and the photographs, with the structure illustrated in tab 4 and explain what, if any, differences are present in tab 4 which were not present in the structure illustrated in tab 3.
A: There's two differences that are— can be seen in the drawings. One is an angle on the back of the outlet end of the nozzle.

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Q: Do you see a number on there that illustrates the structure you're now referring to?
A: Number 27.
Q: Okay. And do you know what that surface 27 does?
A: I can't be sure, but I assume it deflects the waves from the transducer back into the porous material.

Q: Okay. Do you see any other differences between what you disclosed to McDonnell Douglas and what is illustrated in tab 4?

A: On their drawing, number 17 is an annular passageway of water that is not on the original—Usher's original prototype.

Q: Now, do you think it makes a significant difference in operation of the device whether or not that annular passageway, 17, is there or if the porous material, 15, is placed flush against the cylinder wall?

MR. ROODMAN: Objection, leading.

A: I never tested the McDonnell Douglas nozzle, but I don't feel like there would be a substantial difference.

Q: Is that because in both cases the water flows through the porous material before going

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into the center chamber?

MR. ROODMAN: Objection, leading.

A: Yes. The water does flow through the material on both.

Q: And those are the only differences of significance that you see between what you disclosed and what they sent to the patent office?

MR. ROODMAN: Leading.

A: Yes, the only two differences.

Q: Do you feel based on what you just said that you have made an inventive contribution to U.S. Patent 5,431,342?

MR. ROODMAN: Objection, leading.

A: Yes, absolutely.

Q: And I'm not sure whether you testified. You were not contacted by McDonnell Douglas asking whether or not you had made an inventive

contribution to the patent applications that led us to this patent; is that correct?
MR. ROODMAN: Objection, leading.
A: No, I was not contacted.
Q: If I were to tell you that without naming any companies that Mr. Lawson testified that this structure is– has been provided to at least 21 ultrasonic testing systems throughout the country,

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with that information, do you believe you should be compensated for your contribution to the structure illustrated in tab B?
MR. ROODMAN: Objection, leading, assumes facts not in the record.
A: Yes. I feel like I should be compensated for the nozzle that they're selling.
MR. CUMMINGS: A moment off the record. I wish to confer briefly with Mr. Deichmann.
(Off the record.)
Do you want to read the deposition?
A: No.
MR. ROODMAN: We're going to ask that you read it and sign for it.
A: Okay.
MR. ROODMAN: We just want to make sure it's accurate and there's no mistakes. We're going to require that you sign.
EXAMINATION
QUESTIONS BY MR. ROODMAN:
Q: One question: Mr. Deichmann, Defendant's Deposition Exhibit No. 6 under tab 3 has some photographs that you maintain is the prototype that you– that you keep using the word, I think, provided to MDC; and I think that's a misnomer. I

* * *

APPENDIX JJ

EXCERPTS FROM DEPOSITION OF DAVID R. USHER

[December 16, 1998]

[33] as possible, and that's the reason for these suggestions. Sometimes it's best to do things contemporaneously rather than have to go over all the stuff again.

Q. I understand that. Mr. Usher, do you recall what stage of development the jumping jet nozzle, flow nozzle that you were developing was in prior to Mr. Deichmann joining Usher's Waterworks?

A. At the time I had developed what I call a straw nozzle, which consists of a large tube with a—it's stuffed full of smaller tubes.

Q. Sometimes referred to as flow straightenera? Have you heard that term?

A. It could be used for flow straightener too.

Q. Tell you what, why don't we put in front of you a pad of paper and pen, Mr. Usher, and ask you to draw the stage of development that you had designed of a laminar flow nozzle prior to Mr. Deichmann joining Usher's Waterworks in the 1987 to '88 timeframe that you testified to.

A. Basically it.

[34] Q. I'm going to ask you to draw arrows so we can describe on the record so the record accurately reflects when we read it later what you've actually drawn, if I may. At one end you have an arrow. Could you write what end that is? What did you just—

A. That's the inlet. It has thread so you can screw it onto a pipe, a water source.

Q. You've written the word flow next to the arrow, which you just described as the inlet?

A. Yeah, right.

Q. And then it looks like you've drawn some threads next to the arrow. What is that? Is that—what is that element?

A. That's where you attach the nozzle to some water source, a pipe.

Q. And then after that there is some type of long straight mechanism. What is that?

A. That's a long hollow tube that is stuffed full of a bunch of smaller tubes that run the entire length interior wise.

[35] Q. So these are tubes that run length wise—these are small straws as you described them—

A. Right.

Q. —that run length wise in order to produce a more laminar flow?

A. Right.

Q. Are there any other inventions that you developed prior to the time that Mr. Deichmann joined Usher's Waterworks?

A. Not that we ended up resulting in a patent. I invented a water show prior when I worked for All American Entertainment. That was—actually, I was doing fountains. I was experimenting with this kind of stuff during All American, my days—I worked there maybe three or four years with All American Entertainment doing water shows. There I had invented, if you will, a Large bathtub, 24 foot long big jacuzzi bath that had a prefabricated water show in it, and I sold a number of those to All American. Sold a number of those, maybe eight or nine or ten or so to Bullwinkle's, Incorporated, which is a pizza parlor chain.

* * *

[48] and never sold any laminar flow nozzles prior to April of 1991, it wouldn't have had any reason to purchase any nozzles from Usher's Waterworks; isn't that true?

A. No. That's not true.

MR. CUMMINGS: Objection, assumes facts not in evidence, not necessarily true. Subject to that if you understand the question, you can answer.

Q. Why isn't it true?

A. No, that is irrelevant.

Q. The question isn't relevant or not. You said it's not true. Why is it not true?

A. It.s not true because the purpose in the engagement of Usher's Waterworks and McDonnell Douglas was to solve a problem that McDonnell Douglas had. I had called them sometime in '85 or '86 or somewhere in advance, and pointed out I had this coherent flow nozzle, and it seemed—occurred to me that since coherent flow is similar to the liquid equivalent of a laser, and that lasers doing all the things that they do for us, that there—since this is an unusual [49] property that does not exist and nobody has used, that I felt that there were specific uses and applications for that technology. At any rate, a year or so later I got a call out of the blue one day from Rich Lawson, who said that they were—they had this device, and that they couldn't get it working. They wanted to know if I could produce a nozzle with certain specifications that I believe—this is just sheer recollection. A stream of water had to be something like an eighth or three-sixteenths of an inch in diameter, had to shoot out eight feet horizontally with nothing more than something like a three or six inch droop, and still be perfectly coherent.

Basically their entire project was stuck because they could not do this. Mr. Lawson said can you make

such a nozzle. I said yes, I can. No problem. I said when would you like to see one? He said how long would it take to show us that you can do this? I said you can come over tomorrow morning and see one if you'd like. He was kind of flabbergasted. At any rate, they [50] showed up the next morning, Rich Lawson and several engineers. I believe Mr. Slade and a few other engineers showed up. I had put together just a quick prototype just showing that I could do that for them. Prior to them even seeing it I made them sign a non-disclosure agreement, which required that anything that they saw at that time from now on, we are the nozzle company. If they wanted to use what they're seeing in any way, shape, or form, that they have to use Usher's Waterworks to produce the nozzle for them as long as our prices are reasonable. That's the only out they had, as long as our price is reasonable. None of this $200 toilet seat bolt stuff. They agreed to that.

They saw it. The Engineers were absolutely flabbergasted. They never had seen anything like that. They gave me some documents—prior to this they also gave me some documentation, or they gave me some documentation demonstrating they had spent well over $200,000 they told me upon other companies developing nozzles. They paid [51] some company a fortune to basically give them a fire hose nozzle, which is just—a fire hose nozzle is a funnel where the water goes in, and it gets narrowed down to a smaller tip, which does not produce a coherent stream. It produces a laminar stream, which consists of different layers of water moving at different velocities. The center is moving faster than the next layer and so forth and so on. The water moving the slowest in the layer is the water touching just the peripheral of the nozzle, which when it comes out the

water is roiling, and it will not stay together coherently. It will fall apart very quickly after I zoom the nozzle.

They had a very large gantry device. I have no way of estimating what it's worth. It was well into the millions of dollars obviously. It's a gantry probably between 24 feet wide and wide enough to put a large wing section in place. All this equipment, probably fifteen—probably 2,500 to 3,000 square foot of floor space dedicated to this with the [52] yellow lines around it, and the whole piece of equipment was junk because they could not—they had a concept that, yes, maybe we can put ultrasonic waves and get it to go through water, and have it read—have the water hit upon it, and then have the ultrasonic waves bounce back, but—that's a perfectly good idea which they were trying to develop, but they did not have the ability to make a coherent stream that was unbroken and capable of continuously and consistently carrying a soundwave and reflect that soundwave back to the source.

So they came to me. They came in that morning, about ten o'clock in the morning, and they really didn't look very expectant at all. It was like, well, this is kind of like a fun little field trip and so forth and so on, and we'll go back. I showed it to them. They were absolutely flabbergasted. They had never seen anything like this before. At that point we entered into an agreement, production agreement, item A, to produce the first prototype working within the parameters of their

* * *

[61] memorialize that; is that correct?

A. No.

Q. Other than your memory; is that correct?

A. Yeah. No.

Q. You indicated a year or so later that Rich Lawson contacted you; is that correct?

A. Correct.

Q. Usher's Waterworks was incorporated on November 12th, 1986. Would you have contacted McDonnell Douglas Corporation prior to the date that you incorporated Usher's?

A. No.

Q. So it was sometime after November of 1986?

A. Correct.

Q. So could have been 1987?

A. Yeah.

Q. Was it likely '87, any recollection?

A. I don't recall.

Q. And do you recall the discussion you had with Rich Lawson when Rich Lawson [62] contacted you?

A. Yes.

Q. Okay. Do you recall what Mr. Lawson said to you?

A. On the first contact, first call he said that they had a project where they needed a nozzle that would produce certain characteristics of flow, and he had heard that I could do that.

Q. Let me just stop you for a second. Did he tell you where he heard that from?

A. No.

Q. Okay. What else was said during that discussion?

A. I—

Q. I'm not going to—just let me—

MR. CUMMINGS: He started to answer the question. Objection, Mr. Roodman. Please allow him to make his answer.

Q. I'm not going to preclude you from testifying at all as we go through this. If I can ask you questions, and if [63] you think it's imperative that you continue with

your answer and you think I'm obstructing you, please let me.

A. Sure.

Q. Simple questions like I just asked you regarding Rich Lawson, it's just very helpful in moving this along.

A. Yeah.

Q. Can you please continue on as to what you recall with respect to your discussion with Rich Lawson during that first telephone call when he contacted you?

A. He said they had a project, and they had a problem. They had to produce a coherent stream of water that had certain specifications in terms of distance, flow, pressure, and so forth and so on. They had not been able to duplicate that or been able to do that satisfactorily. He had heard that I could do that. His first question to me was can you produce a nozzle that will shoot out eight feet horizontally, and I believe it was like an eighth inch or maybe three-sixteenths of an inch. That's my recollection. It's fairly small. That [64] would shoot out eight feet horizontally, a certain diameter, with no more than a certain droop when you get eight feet out. I said yeah. My response to him was when would you like to see one? So he expressed a little bit of—he was kind of flabbergasted really. He thought I was kidding him. So I had to spend some time just talking about that I had done one of this size before. I didn't have one made up at the moment, but I could—I said you can come over tomorrow morning and see one if you'd like. Again, he was a little bit dumbfounded. So at that point I said, well, if you want to come over tomorrow, you can see one. If you don't, you'll never know what you missed. So he said okay, we'll come on over, but this better be good is what he told me.

Q. Was that the extent of that conversation?

A. Well, yeah. I also let him know that I would

require them to sign a nondisclosure agreement before they got to see anything.

[65] Q. Did you send one over to him that day?

A. Well, I said we'd have it prepared, and they could sign it at the time they came in.

Q. And it's your recollection, Mr. Usher, that Usher's Waterworks drafted a confidentiality agreement and had it available and ready for McDonnell Douglas to sign when they came up to visit your facility?

A. Yes.

Q. Do you know who drafted that confidentiality agreement?

A. I did.

Q. Did anybody else participate in the drafting of that document?

A. I think Harlie Frost probably checked it.

Q. And do you recall the date that this telephone conversation occurred with Rich Lawson?

A. No.

Q. Do you recall the year?

A. No.

* * *

[71] and yellowed here. These were handed to me at that time.

MR. CUMMINGS: I move those cards be marked and added to the record.

Q. I'm going to put in front of you a copy that's been made of the two cards that you looked at. These are business cards that bear the names Mark D. Leach, L-E-A-C-H, and Rich Lawson, and ask you is that what you used to refresh your recollection as to who came out to that first meeting with McDonnell Douglas to Usher's facility?

A. Yes.

Q. Are those the two people that you recall that attended that meeting?

A. I believe—well, Rich Lawson handed me this card when he came in. I believe Mark Leach gave it to me. However, this guy may not have given me this card until I had gone out to McDonnell Douglas. Yeah.

Q. And there's some handwriting on Rich Lawson's business card. It says Charles Slade?

[72] A. Yeah.

Q. Did he write his name on here or did you write his name on here in lieu of receiving a business card?

A. Yeah, I wrote that. I wrote that there. Now, I'm not sure if Charles Slade actually came out that day. He may have had to do with the purchasing division. I'm not sure. These cards were handed to me at the time of our initial meeting, or within a day or so of that as we met.

Q. So your recollection is that Mr. Lawson and Mr. Leach were present?

A. It's my understanding, yeah.

Q. You're not certain as to whether or not Mr. Slade was present at that meeting or not?

A. Correct.

Q. Was anybody else to the best of your recollection present at that meeting with McDonnell Douglas other than Mr. Leach and Mr. Lawson?

A. There were four or five people who came out. I do not recall who the other people were. They were some less important [73] engineers that were just working in the group.

Q. Let's mark a copy of these two business cards as Defendant's Deposition Exhibit Number 46.

(Whereupon, Exhibit No. 46 was marked for identification by the court reporter.)

(Whereupon, a short recess was taken.)

Q. Back on the record. You're still under oath.

A. Yeah.

Q. Do you recall what nozzle you demonstrated to Mr. Lawson and Mr. Leach when they first came out to Usher's facility?

A. Yeah. It would be a small round tubular nozzle. I don't have the nozzle or any drawings. I just—small round tubular nozzle that was probably made out of inch and a half to two inch PVC pipe with a sharp-edged orifice on one end where the water came out, a flow straightening material which we called magic inside of [74] it. I believe there was a small air pocket inside of it. Then that was hooked up to a small pump.

Q. Could you draw a picture of the nozzle design that was demonstrated to MDC during that meeting, please?

A. Ballpark. Actually, that's open there.

Q. Mr. Usher, I'd reflect you've drawn a nozzle. Would you mind noting where the inlet to this nozzle is on the drawing?

A. It's on the end. It's basically irrelevant.

Q. I understand that. For clarification for the record when we're reading back the transcript, I'd like to be able to note the specific parts of the nozzle as we go through it.

A. Correct.

Q. If we're looking at the picture of the orientation it's in, at the left and you have an arrow drawn into something. What is that?

A. It's a hose fitting so you can hook up a hose.

[75] Q. You've written hose FTG. That's hose fitting?

A. Fitting, yeah.

Q. What is the next portion of the nozzle that you've drawn?

A. Well, it's the backside of a nozzle, which has probably a half inch—I mean, if I were to—if you were to call

me up on the phone today, I would still—this is probably what I built, or something very similar to that.

Q. The next portion of this is what?

A. It's the back end of the nozzle. It's got a threaded hose fitting in there so you can hook a hose to it.

Q. Is this nozzle cylindrical?

A. Yeah.

Q. Would you mind writing—noting somewhere that it's cylindrical?

A. In perspective—

Q. You've drawn a second figure on this piece of paper. Let's call the first one figure one and the second figure figure two so we know what we're referring to as we walk through this. Okay. You've drawn [76] figure two. What is that depicting, Mr. Usher?

A. Well, it's kind of like a rough 3-D drawing. If I had one here, it's approximately what it would look like.

Q. That's the same nozzle that's shown in figure one, but you're showing a perspective that it's a cylindrical nozzle, correct?

A. Yeah. This is probably ten inches long, ballpark.

Q. You've written-

A. Approximately ten inch.

Q. Okay.

A. Ten inch length. This would have been-

Q. This you're referring to the-

A. Inch and a half or two inch PVC.

Q. Is this PVC pipe clear?

A. No. It would be schedule E.

Q. So it would be white, and you wouldn't be able to see through it?

A. It's gray. For the purposes of the prototype, for our quicky we'd just take a piece of pipe, cut it off. These two ends [77] here would have been made out of acrylic because you can put that machine in very easily.

This would have been just temporarily bolted, screwed on.

Q. This you're referring to—just because when we read back the record we're going to have difficulty, this you said is acrylic. You are referring to—I tell you what, why don't you draw an arrow to the portion you're calling acrylic. You're writing acrylic, okay.

A. This is solely a demonstration nozzle. I just threw it together so I could demonstrate to them that I could produce a stream of water that met their specifications.

Q. We're looking—again, we're starting at the back end. You've indicated that you have a hose fitting. There's a chamber, and the first chamber, correct me if I'm using the wrong terminology here, Mr. Usher, but there appears to be a first chamber. Do you have a name for that?

A. No. It's just an open area for the water to go into, smooth out a little

* * *

[88] deemed confidential to Usher's Waterworks?

A. Well, of course, the whole design. We don't tell people how we build these things. I mean, it's just—as far as I'm concerned, it's just proprietary to us as how you and your firm might go about questioning doing a deposition. You have certain ways of doing things here, you know, at this corporation. It's just like that when I work for AT&T.

Q. Are there any particular aspects or features of this design that's shown in Defendant's Deposition Exhibit 47, which Usher's felt was confidential to it at the time it was disclosed to MDC?

A. Yeah.

MR. CUMMINGS: Objection, asked and answered. He said the whole design.

A. The whole thing.

Q. But were there any specific features, Mr. Usher, is my question?

A. Yeah, the air pocket, the use of the open cell reticulated PVC, and the sharp-edged orifice.

Q. Any other aspects that were [89] confidential to Usher's at that time?

A. Well, the whole thing as a unit. The thing is we don't just let people see our equipment. When we sold jumping jets we had nondisclosure agreements with the malls that bought them and places that stipulated that they weren't to allow people just to look at the equipment. They were not allowed to hire fountain—other fountain companies to maybe repair the equipment. It's very similar to what Busch does at Disneyland. If you go to Disneyland and try to look in their jumping jet, they will throw you out of the park faster than you—

Q. What did you disclose to Mr. Lawson and Mr. Leach during this meeting about this particular nozzle?

A. I don't recall if the manner—what was inside. I don't recall if that was disclosed at the time. They didn't see the nozzle. They saw the figure two part, if you will.

Q. Did they see the nozzle only in operation, or did they see it not in operation?

* * *

[117] Q. Back on the record. Mr. Usher, after this prototype was developed you testified that the prototype was then delivered out to McDonnell Douglas. Is that the right chronology?

A. Yeah. We took it out there for an installation.

Q. Okay. Who took it out for the installation?

A. I know I did. Yeah, Ron was there. I'm not sure if we had anybody else there with us.

Q. The nozzle you're referring to is the one that's depicted in Defendant's Deposition Exhibit Number 52?

A. Yeah, best as I recall. Yeah.

Q. And the Ron you're referring to, that's Ron Deichmann and yourself were the two people from Usher's Waterworks who brought the prototype out to McDonnell Douglas?

A. Yeah.

Q. Do you know who was present from McDonnell Douglas?

A. Just about everybody that had [118] anything to do with the project up there.

Q. Do you recall any individuals in particular?

A. Well, Rich was there in and out.

Q. Is that Rich Lawson?

A. Rich Lawson, he was there. He was in and out. I think Mr. Slade was there. Mr. Slade was there.

Q. Do you think he was there?

A. I'm pretty sure he was. I don't recall, but he was one of the engineers that was working on solving this.

Q. But you're not—you're not certain that he was there?

A. No.

Q. Are you certain that Mr. Lawson was there?

A. Yeah.

Q. Anybody else that you can recall?

A. No. There were just a lot of McDonnell Douglas people there.

Q. Do you recall approximately how many?

A. Probably about a dozen or fifteen coming and going to. Some people would come

* * *

[121] A. Five minutes, ten minutes. It didn't take long.

Q. After the tour, what happened next?

A. Well, then we went over to the gantry. I got my first look at it. I was just kind of like (witness indicates sound). It's not a minor piece of equipment.

Q. Was there more than one gantry in the facility?

A. I don't recall. My focus was on that gantry period. The rest of the building was basically unimportant. I was focused on having this thing work perfectly and be of whatever engineering assistance I could be, you know. This was not like visiting the Grand Canyon, you know. I'm there to get the job done. That was why I was there.

Q. Was the ultrasonic testing equipment on the gantry up and running when you arrived?

A. It was not operating at the time. It did not have a nozzle mounted on it. All the equipment is there, but it was not [122] turned on.

Q. Your understanding is that at that point in time it wouldn't have been able to run with the nozzle that MDC had in its possession; is that correct?

A. Well, that's—first of all, like I say, that's how they represented it to me. They had this project that didn't work. Of course, when I got there there was no nozzle mounted on it. It was an empty mechanism.

Q. And the people who made this representation to you, do you recall who that was?

A. Rich Lawson.

Q. Okay.

A. I will say, he did express to me privately he was a little bit concerned for his job. Basically apparently these guys had gone way out on a limb in developing this thing. If it didn't work, they were going—well, you know how that stuff goes. Heads roll, you know. Heads roll, and as he related to me, he was in that position at the time as were some of the other people.

[123] Q. So the next step, what's the next thing that happened? You went over to the gantry with the nozzle?

A. Well, we took a quick look at it, and they showed me the armature where the nozzle was going to be mounted, and pointed out the various motors and computer equipment and control panels and hydraulic boxes and all that other stuff.

Q. Do you recall who carried the nozzle into the facility? Was it you or Mr. Deichmann?

A. I don't recall.

Q. Do you recall whether or not you delivered the nozzle to Mr. Lawson when you came into the facility?

A. I don't recall.

Q. Okay.

A. All I know is we got—one of us brought it into the building, and it was mounted. McDonnell Douglas people did put it on as I recall, but we kind of supervised it, if you will, watched and made basic suggestions.

Q. Do you recall who mounted it from [124] McDonnell Douglas?

A. No.

Q. Do you know if it was Mr. Lawson?

A. No, I don't know.

Q. And after the nozzle was mounted, what happened next?

A. Actually, given new regulations I think Mr. Lawson probably would not have installed it. Well, there was some time just talking over installing it, pros and cons, talking about improvements. The immediate thing I saw—as soon as I saw it I said, well, we need—I jumped right in and said I can see right now that we need to make this thing really perfect. We're going to need to make some minor changes to your armature so that we can use a somewhat larger tube to feed water in with. We also need something that's more flexible than what they had. We needed a little bit more mechanical space so that we didn't have to come in at a sharp, hard ninety degree. We

could bring the water in more smoothly than just kind of–

Q. You're talking about the water [125] inlet into the back of the nozzle?

A. Right. That's what I expressed all along. So at that point I started suggesting things that could be done looking down the road because I knew it was going to work a lot better than what we had. We already tested it. It was–the performance was quite good. It wasn't perfect, but it was near perfect.

Q. Did anybody make any comments about the performance of the nozzle?

A. Yeah. There were a lot of raised eyebrows. It was like wow, you know.

Q. Do you recall who made comments?

A. No.

Q. Did Mr. Lawson make any comments to you regarding the nozzle performance?

A. At the time, like I say, I don't recall the exact nature of the conversations. I'll say that right up front. I do very clearly remember the general gist. It's kind of like if you had a conversation six years ago with somebody. I mean, the general gist was that they were very impressed with what they saw. When

* * *

[CONFIDENTIAL]

APPENDIX KK

EXCERPTS FROM DEPOSITION OF RICHARD D. LAWSON

[November 6, 1998]

[10] that you contacted Usher's Waterworks and set up a meeting between David Usher and, I guess, Ron and yourself sometime in 1989?

A I don't remember the specifics, but yes, we set up a meeting and went out to—went out to, I guess it was. Fenton. Went to their facility in Fenton.

Q All right. And isn't it true that Usher's requested a confidentiality agreement be executed prior to the meeting?

A Correct.

Q All right. Now, I think that we can put this whole booklet in as Exhibit 1. Contained within this booklet, the last several pages, is a nondisclosure agreement. Now, it's executed by a man named Whiting, but did you bring the nondisclosure—the signed nondisclosure agreement out to Fenton with you?

A I don't—don't remember. We either faxed it or brought it out, I'm not sure.

Q Okay. So you agree that there was, in fact, a confidentiality agreement in effect. Did you ever have an opportunity to review it?

MR. ROODMAN: I'm going to object to the characterization of that statement. If you [11] want to ask your question, you can ask your question. But you made a statement that I don't believe is accurate.

Q (By Mr. Cummings) Did you ever have an opportunity to review the confidentiality agreement?

A Yes.

Q Do you recognize this as being a copy of it? You are welcome to inspect it.

MR. ROODMAN: I am just going to object to this to the extent that it appears that somebody typed something on the top of this copy. I don't know if that's actually part of the document or not. You can answer the question if you know.

THE WITNESS: It—I'm not sure what the enclosure part is, but it appears to be the agreement.

Q (By Mr. Cummings) Okay. And you brought with you, or had delivered, an executed original agreement prior to your meeting with Usher's Waterworks out in Fenton; isn't that correct?

MR. ROODMAN: I'm going to have to object. Asked and answered. And the witness [12] already told you that he doesn't recall bringing that document with him.

MR. CUMMINGS: Well, I believe he testified that he was aware that a confidentiality agreement had been entered into.

MR. ROODMAN: That wasn't your question, counsel. If you want to re-ask the question.

Q (By Mr. Cummings) Well, you werethen aware that a—were you not aware that a confidentiality agreement had been entered into between Usher's Waterworks and McDonnell Douglas Corporation in August of 1989?

A Yes, I was aware.

Q Okay. Now, when you—do you remember what transpired, as you recall, at the first meeting?

MR. ROODMAN: Yes or no.

THE WITNESS: Yes.

Q (By Mr. Cummings) Did you, in fact, bring with you these prototypes? One was a prototype—strike that, please. One—I—isn't it true that one of these was a proto-

type and one was a commercial McDonnell Douglas nozzle which was being used for ultrasonic testing?

[13] MR. ROODMAN: Well, I'm going to object to the characterization and ask that the witness be able to take a look at the devices you just took out of your briefcase because they are a few feet away from him.

MR. CUMMINGS: That's fine.

THE WITNESS: Those are—those are nozzles, both of our design and are both—were both in use up through last year still.

Q (By Mr. Cummings) At the time you brought them out there, were they both in commercial use or was one a prototype?

MR. ROODMAN: I'm going to object. The witness didn't say that he brought these out there.

Q (By Mr. Cummings) Did you, in fact, bring them out there?

A I don't—I really don't recall bringing them out there, but they are obviously our designs. So I would say it's probably the case, yes.

Q Okay. Now, at the time—do you recall, and I'm going to say when you brought them out there, was one of them a prototype and one a commercial device or were they both commercial [14] devices at that time?

A They were—to the best of my recollection, those were both in use on ultrasonic inspection machines.

Q Okay. Now, you had some discussions with Usher's Waterworks. And on or about October 30th, did you write a letter to David Usher requesting a request for quotation? And in this regard, I hand you what should be marked as Plaintiffs' Exhibit 4. And one of these prototype nozzles should be Exhibit 2 and one Exhibit 3.

MR. ROODMAN: Counsel, you haven't marked an Exhibit 1 yet.

MR. CUMMINGS: Well, let's mark this as Exhibit 1.

MR. ROODMAN: Let's pause for a second while we get all this straightened out.

(Whereupon, the Reporter marked Plaintiffs' Exhibit Numbers 1, 2, and 3 for identification as requested.)

MR. ROODMAN: I believe you were—well, I will let you go on.

Q (By Mr. Cummings) I am handing you what should be marked the next exhibit. So is that—

* * *

[34] MR. CUMMINGS: Sure.

Q (By Mr. Cummings) Do you recognize that nozzle, Mr. Lawson?

A It's been a number of years, but that looks like the prototype we tested.

Q In what manner did you test it?

A We had a—we had an off system in some—some form of checkout and we attached it to that off system and simply squirted water through it.

Q What happened?

A It failed miserably.

Q In what sense did it fail?

A There was no coherent stream coming out of the nozzle.

Q Was anyone else present when the test occurred?.

A We were in a checkout area.

Q What's a checkout area, Mr. Lawson?

A We were in an area where we were putting a system together for delivery. Ron and I did the main testing on it. I don't recall if anybody else was involved.

Q So Mr. Deichmann was present at the test?

[35] A Correct.

Q Did you observe any laminar flow of water?

MR. ROODMAN: Out of the nozzle?

MR. CUMMINGS: Yes.

THE WITNESS: With a transducer installed, there was there no laminar flow out of the nozzle.

MR. CUMMINGS: A moment off the record.

(Whereupon, at this point in the proceedings, an off-the-record discussion was held.)

Q (By Mr. Cummings) Do you know who installed the nozzle into the text—ultrasonic testing system?

A No, I do not. We just-

Q It wasn't you, was it?

A I don't recall, so no, I don't think it was me. It was just strapped on temporarily and it was just a short term thing, so—

Q So it might not have been placed on there satisfactorily, is that your position?

A It was—

MR. ROODMAN: I'm going to object to [36] the characterization of the witness's answer. He didn't say that.

MR. CUMMINGS: He implied it.

MR. ROODMAN: I'm going to object again. If you have a question for the witness, ask it.

Q (By Mr. Cummings) Do you know whether or not the nozzle was properly installed on the ultrasonic equipment?

A It was clamped on to the end effector somewhere so that we could take advantage of the hoses that supplied—normally supplied water to—to a nozzle.

Q And it's your position—did you observe any laminar flow from the nozzle?

A One of the tests that we ran was we removed the transducer out of the flow stream. And in that instance, there was—I don't know what you call a laminar flow, but—I'm not a flow expert—but it was a good stream coming out of it.

Q Now, you say, with the transducer removed. It sounds to me like there was one test with the transducer in place and one test with the transducer not in place; is that correct?

[37] A The test? I mean, the usage of the nozzle is for ultrasonic testing. So we tried it without the transducer in place, but it's useless to us without a transducer in place.

Q But you indicated that it ran well when it was tested without the transducer. Isn't that what you just said?

A I said it gave us a good looking stream with the transducer in ace. It would—it was—it's a mute point. That was an afterthought because it didn't work with the transducer in place, so we tried it without.

Q And it worked quite well?

A No, it did not because it does not do our application. It worked—it might as well be a fountain if it doesn't have a transducer in place. So no, it did not work well. And that's—

Q In what sense did it not work well? What didn't work right?

A With a transducer in place, it was a [38] totally—it was a totally disbursed stream. There was not even a —any part of it that turned into a stream coming out of the nozzle.

Q But without the transducer, there was laminar flow; is that correct?

A There was a good-looking stream coming out without the transducer.

Q Would you characterize it as a laminar flow?

A Again, I—there is arguments up and down the industry on what laminar flow is. And I would say it was a good-looking stream.

Q Okay. Now, I would like to go back to Plaintiffs' Exhibit 1. Before we get into this, was that the only testing of an Usher's nozzle that McDonnell Douglas conducted, to your knowledge?

A To my knowledge, what I remember, that was the only testing we did.

Q And you were the—you were the supervisor of this program at that time; is that right?

A I was a supervisor in the group that built this stuff.

Q So that if somebody else tested it, you would know about it, in all likelihood?

[39] A Yes, I would remember it, I would think.

Q Okay. Now, I'm handing you what's been previously marked as Plaintiffs' Exhibit 1. You can see that it's a booklet. An identical copy to Plaintiffs' Exhibit 1 was delivered by myself and Mr. Deichmann some months ago at the time when we had to file the Rule 26 disclosure. Mr. Crowe received a copy of this document.

In this document, you will find drawings of the two McDonnell Douglas nozzles and photographs of them. The first one is drawings and photographs of Plaintiffs' Exhibit 3. That's under Tab 1. Under Tab 2, Exhibit B is drawings and photographs of Plaintiffs' Exhibit 2. Would you take a look at those, Mr. Lawson?

MR. ROODMAN: I just want to place an objection on the record that counsel has been testifying on the record as to what things are. There has been no testimony from the witness on these particular exhibits. You may proceed.

Q (By Mr. Cummings) Do you—do you wish to compare the sketches and drawings to Exhibits 2 and 3?

A Restate the question.

[40] Q Mr. Roodman is objecting to these. I'm not clear exactly what his objection is, but I invite you to inspect and compare Plaintiffs' Exhibits 2 and 3 with—

A Well–

Q –Exhibits A and B, the engineering drawings and photographs of them.

A These engineering drawings are not–have not been –were not generated by McDonnell Douglas.

Q That's true.

A They are not–I have no idea what those are. I mean, they look like the nozzle, but I mean, that's–those are not generated by McDonnell Douglas. I do not recognize them.

Q Okay. Do you see the photographs there?

A Yes.

Q All right. Do you disagree that the–do you have any doubt in your mind that these are photographs of these two exhibits?

A The photographs I agree to. Those are photographs of those exhibits. Again, the drawings on Exhibit 2, or section two, are not McDonnell Douglas' drawings. I do not recognize [41] them.

Q Well, could you look at them and see, as an electrical engineer and a person practicing in this area, whether or not, in general, those drawings accurately depict Plaintiffs' Exhibits 2 and 3?

MR. ROODMAN: I'm going to object to the use of the word "general."

THE WITNESS: They appear to be drawings of those–those pieces.

Q (By Mr. Cummings) Okay. Now, I would like to direct your attention to Exhibit C, Tab 3. And there you will find a similar drawing and photographs of Plaintiffs' Exhibit 2. No, I'm sorry, Plaintiffs' Exhibit–what is that one, David?

A Seven.

Q Seven.

A The photographs are external photographs of the assembly. They appear to be photographs of the assembly, exterior photographs of the assembly.

Q Okay.

A I have never seen a drawing of this assembly. The first time I saw this was yesterday. [42] This does not reflect—the internal structure does not reflect my recollection of what that nozzle was tested as.

Q You are—

A This is not accurate to what we—to what the development prototype was.

Q You think that—do you disagree that that is a drawing of Plaintiffs' Exhibit 7?

A I disagree that the internal structure of that drawing does not match what I—Ron and I tested in 1990.

Q What differences do you allege—what differences do you allege between what was tested in 1990 and what appears on the drawing and the photographs? What differences?

A In 1990, the foam item, I guess you would call Item Number 15, the porous material, ended at the transducer face. The front chamber was free and clear.

MR. CUMMINGS: May I have a moment off the record? I would like to consult with Mr. Deichmann.

MR. ROODMAN: I would like that on the record.

MR. CUMMINGS: Yeah, we—that's

* * *

[60] these two nozzle designs.

Q Okay. Now, Mr. Lawson, You commercialized what's shown in Tab 4 and this patent extensively; isn't that true, you and McDonnell Douglas personnel?

MR. ROODMAN: Could you repeat the question, please?

Q (By Mr. Cummings) McDonnell Douglas—first, we need to understand, and I think we already have in this

record, but I want to emphasize it again, that Tab 4 is a blowup of Figure 1 to 3 in the patent. You have—McDonnell Douglas has extensively used what's shown in Figures 1 to 3 for ultrasonic testing of aircraft parts; isn't that true?

MR. ROODMAN: I'm going object to the characterization of "extensively," but answer the question, if you can.

THE WITNESS: We use this nozzle on our ultrasonic inspection machines.

Q (By Mr. Cummings) How many ultrasonic inspection machines has McDonnell Douglas built which, and are using, which are presently incorporating this nozzle?

A I would be guessing. That's nine [61] years that—well, not nine years since '92, so that's—I would be guessing. I think—I think we've provided information on that.

Q Isn't it true that there are at least 21 such machines?

MR. ROODMAN: If you know, answer. Otherwise, I caution the witness not to speculate.

THE WITNESS: I would be speculating, but that would not surprise me.

Q (By Mr. Cummings) Okay. Isn't it true that previous systems that didn't—isn't this called in your literature the long-throw nozzle?

A That is our term for it.

Q And haven't you incorporated this long-throw nozzle in ultrasonic machines which had been previously used both at McDonnell Douglas and customers? You have put this long-throw nozzle as an upgrade into those machines; isn't that true?

MR. ROODMAN: I'm sorry. What machines are you referring to, counsel?

Q (By Mr. Cummings) The ones that have been used at the McDonnell Douglas facility. The ones that have been used at the Boeing facility. The ones that have been used at Rohr [62] (ph.) Industries. The ones used at Hexell. The ones used in Australia. Haven't these all been upgraded with these long-throw nozzles, Mr. Lawson?

A Not all the systems have been upgraded.

Q Which ones have not been upgraded?

A We had—we have three systems in St. Louis that have not been upgraded.

Q How about Boeing Wichita?

A All the systems at Boeing Wichita were delivered with the nozzle.

Q How about Boeing Seattle?

A They have no—they have none of our systems and none of these nozzles.

Q How about Rohr Industries?

A I cannot speak to outside customers. That is—I have confidentiality agreements with them, so you would have to talk to them.

Q Is Hexell in the same category?

A They are an outside customer. I cannot discuss that they bought from us or anything about them.

MR. ROODMAN: Counselor, if you are using information that was produced in documents marked confidential/attorneys' eyes only with [63] Mr. Deichmann present in the room as far as customers—

MR. CUMMINGS: It wasn't.

MR. ROODMAN: That's fine. I'm just cautioning you that if you are—

MR. CUMMINGS: I'm not.

MR. ROODMAN: —that Mr. Deichmann would have to leave the room.

MR. CUMMINGS: I'm not.

Q (By Mr. Cummings) Let's see here. Isn't it true, Mr. Lawson, that the signal-to-noise ratio with this system is much better than previous systems used by McDonnell Douglas such as Plaintiffs' Exhibits 2 and 3? Isn't that true?

A The signal-to-noise ratio difference does not—is not appreciable until it gets past 2 to 3 inches. Under that, it's—all the nozzles work well. In fact, the exhibit—Exhibit Number 2 is probably our best nozzle beyond that point.

Q I don't understand what you mean by "beyond that point."

A Beyond the 2 to 3 inches of standoff distance.

Q I didn't hear the last two words.

A Between the 2 to 3 inches of [64] standoff distance.

Q Now, there are some other differences between Plaintiffs' Exhibits 2 and 3 and what's shown in these drawings here. Isn't it true that—and including Tab 3—that the plenum chamber is cylindrical, and in Exhibits 2 and 3 and in the drawings, these plenum chambers are tapered? Isn't that true, Mr. Lawson?

A All the nozzle designs have cylindrical plenum chambers where the water enters.

Q But these are tapered, are they not? Plaintiffs' Exhibits 2 and 3 are tapered, are they not, Mr. Lawson?

A The exit chambers are tapered.

Q Thank you. Now, in both Tab 3 and Tab 4 and in the patent, there is a layer of porous material through which the fluid, at least partially, flows; isn't that true, Mr. Lawson?

A Yeah. There is porous material where it flows through. Our concept uses a very tightly, very fine, almost, I would say, more permeable material versus the

coarse material that you have got shown in that exhibit. A huge difference.

Q You're alleging that the [65] permeability of your material is different than the permeability of Plaintiffs' Exhibit 7?

A Yes.

Q Is it finer?

A It's—it's a very—I guess we tried a number of different materials, but it was a—it's a very fine—very fine porosity, I guess you would say.

MR. CUMMINGS: I think we should mark this. This is the next exhibit.

(Whereupon, the Reporter marked Plaintiffs' Exhibit Number 9 for identification as requested.)

Q (By Mr. Cummings) Mr. Lawson, let's try to be as—let's try to save as much time as we can here. This is AUSS 5, Automatic Ultrasonic Scanning System. And I direct your attention to the last item in the document. Didn't you and your McDonnell Douglas people adopt the long-throw—the long-throw embodiment into at least all of the AUSS 5 systems?

MR. ROODMAN: First of all, I'm going to object. This is a document that's been marked as confidential/attorneys' and experts' eyes only.

[66] MR. CUMMINGS: Okay. Then you'll have to leave.

MR. ROODMAN: And this portion of the record will need to be identified as confidential/attorneys' only—attorneys' and expert eyes only.

(Whereupon, Mr. Deichmann leaves the deposition room.)

MR. CUMMINGS: That's fine.

MR. ROODMAN: And I also need to object to the extent that this particular exhibit is four pages. The first page is marked as 1. The second page is marked as 36. The third page is marked as 36. And then the fourth page

of the exhibit appears to be from potentially a different document with a different date, January 7, 1997. Now, do you have a question?

Q (By Mr. Cummings) Let's see if we can—let's see if we can try to be efficient about this. Isn't it true that—that you adopted the long-throw nozzle embodiment to be used as either as a direct AUSS 5 component or AUSS 5 upgrade in all the AUSS 5 systems?

MR. ROODMAN: I'm going to object to the extent that the witness has already testified [67] that this is not used in all AUSS systems.

THE WITNESS: That nozzle has been delivered on all AUSS 5 systems since 1992.

Q (By Mr. Cummings) Thank you very much.

A We had—they have not all been upgraded to it.

Q How many AUSS 5 systems have been delivered? Is that 21 or is it less than 21?

A It was—it was 21 at one point. A lot of those—

Q It may be more than that now?

A Yeah. And a lot of those were delivered before '92. The first AUSS 5 was delivered in '87, so what the break is, I don't know.

Q But—it was delivered in '87.

A The first AUSS 5 was delivered in '87, correct.

Q But that—that first AUSS 5 didn't have a long-throw nozzle, did it?

A No. It was provided with a Martin Marietta LUP nozzle.

MR. CUMMINGS: Okay. It might be useful at this point if you made—I will look for [68] another copy of this. Let me see if I don't have another copy of it. I thought that I did.

MR. ROODMAN: While you're looking, why don't I have a copy made? Are you finished with this particular exhibit, because Mr. Deichmann might be able to come

back in? Or are you planning on staying with attorneys' eyes only?

MR. CUMMINGS: I want to go over some other material now. I've got some—I've achieved—I want to return to items that are not experts only.

(Whereupon, Mr. Deichmann returned to the deposition room.)

Q (By Mr. Cummings) We are returning to 8. All right. Now, concerning Plaintiffs' Exhibit 8, US Patent 5431342, Ronald S. Deichmann is not listed as an inventor, is he?

MR. ROODMAN: Asked and answered.

Q (By Mr. Cummings) Well, let's answer it now because we are starting a new section.

MR. ROODMAN: That's fine.

THE WITNESS: No, he's not.

Q (By Mr. Cummings) All right. Now, when you—you did fill out a disclosure document [69] and list people who you thought had invented—had made this invention; is that not true?

A Yes, we did.

Q But you didn't tell the McDonnell Douglas patent attorneys that Ronald S. Deichmann had a made a contribution to this invention; is that correct?

A Ronald S. Deichmann did not make a contribution to this invention.

Q Well, I would ask that you reconsider that by comparing—comparing in Exhibit 1, Tabs 3 and 4.

MR. ROODMAN: Counsel, I'm going to object.

THE WITNESS: I've already compared those.

MR. ROODMAN: You have exhaustively asked questions about Exhibits 3 and 4. The witness has testified. If you are asking him to change his answer, that's inappropriate. Is there a question pending?

MR. CUMMINGS: I'm not asking him to change his answer. I'm asking him, in view of the great similarity between Tab 3 and the patent drawings, why Mr. Lawson didn't wish to add [70] Mr. Deichamnn as a co-inventor.

MR. ROODMAN: I'm going to object to your characterization of the great similarity because the witness has already testified that there are great differences between the two drawings. You may ask your question if you like, but I would prefer that you not testify on the record. If you have a question, ask the question.

Q (By Mr. Cummings) Do you agree, Mr. Lawson, that there are great similarities between Tabs 3 and 4?

A No.

Q Don't they both have porous material in them?

A We have been through this.

Q But we haven't been through it except concerning adding him as an inventor.

MR. ROODMAN: Is there a question?

Q (By Mr. Cummings) Don't they both have porous material?

A They both have porous material.

Q Don't they both have knife-edged orifices?

A They both have knife-edged orifices.

Q Don't they both have cylindrical [71] plenum chambers?

A They both have cylindrical plenum chambers.

Q And they both have transducers; isn't that true?

A They both have transducers.

Q But you didn't feel that it was appropriate to list Mr. Deichmann as an inventor, notwithstanding those similarities?

A How the—how our invention works is completely different than anything that Ron did. It works completely differently.

Q Isn't it true that the only substantive difference between what's shown in Tab 3 and the patent is the reflecting surface, 27, which directs the ultrasonic waves towards the wall instead of the transducer?

A Again, no. That is not the only difference. Major differences here. Read the patent. It's different. How it works is different.

Q I want to—

A Everything that you—everything that you asked that were similar are things that are—that are public knowledge that have been in [72] use since the '20s, '60s. There is numerous accounts of all that stuff being used, but it's never been used. So everything that Ron disclosed is public knowledge.

MR. CUMMINGS: Move to strike all of his long colloquy about the prior art as nonresponsive to the question.

Q (By Mr. Cummings) I would like to direct your attention, Mr. Lawson, to Claim 1 of the patent. And I would like you to also open Tab 3. Are you ready for Claim 1?

Mr. Lawson, isn't it true that Tab 3 discloses a nozzle for providing a laminar exhaust stream comprising a cylindrical plenum chamber, which is 11? having an exhaust orifice, 23; and annular passageway laterally subscribing said plenum chamber and having a longitudinal wall in common with said plenum chamber—

A Is that the end of the question?

Q No. And said wall being porous, which is at 15, whereby the passageway and said plenum chamber fluidly communicate in a radial direction?

MR. ROODMAN: Let me place an objection on the record to the characterization of [73] asking this witness whether or not this particular drawing provides a laminar exhaust stream when he has already testified

that Boeing and McDonnell Douglas never tested and never received this particular arrangement. You can answer the question, if you may.

MR. CUMMINGS: He testified that it was—that they tested it.

MR. ROODMAN: No, he never—he never—

MR. CUMMINGS: I object to your objection.

MR. ROODMAN: He never testified that they ever tested what is depicted on this particular drawing under Exhibit 3 of Plaintiffs' Exhibit 1. That's inaccurate, counsel.

Q (By Mr. Cummings) Okay. Mr. Lawson, do you think you had a duty, in view of the contract, which the purchase order to—this is Exhibit 4, request for quotation. I'm going to direct your attention to Paragraph 1.1.1, Design and Build, and direct your attention to Paragraph 1.1.2, Test at McAir in a Production Environment. Did you ever—you and your people ever do that at McDonnell Douglas, Mr. Lawson?

[74] MR. ROODMAN: Ever do what, counsel?

Q (By Mr. Cummings) Test as called for in that paragraph that I identified.

A No, we never tested in a production environment.

Q Thank you.

A The thing didn't work. Why would I test in a production environment if it didn't work?

MR. CUMMINGS: Move to strike the portion past responding that he never tested it. It's nonresponsive.

Q (By Mr. Cummings) You didn't feel that you had a duty after the purchase order was issued to—to carry out a good faith test of the nozzle which Mr. Lawson (sic.) supplied to you and brought to you?

A A good faith test? The thing did not even generate a stream. How could I test it? It was visibly a miserable failure right from the start. It was not even worth testing.

Q You testified that it looked pretty good when the transistor—transducer was removed.

A It does me absolutely no good with the transducer out of it. Might as well be a fountain.

[75] Q Well, as far as I know, Mr. Lawson, you haven't answered my question about Claim 1. Isn't—aren't the limitations found in Claim 1 found in—

A No, they are not.

Q Plaintiffs' Exhibit 7?

MR. ROODMAN: Let me place another objection on the record.

Q (By Mr. Cummings) Exhibit 7 and in Tab 3 of Plaintiffs' Exhibit 1. Isn't each and every one of those limitations of Claim 1 found in both of those documents and prototypes?

A No.

MR. ROODMAN: Let me object. Are you going to—

MR. CUMMINGS: Thank you very much. Asked and answered.

MR. ROODMAN: I'm going to get my objection on the record. Vague and ambiguous question. This witness is not a patent attorney. He's not an attorney. And to ask him to testify as [76] to the characterization of what this claim means is inappropriate.

MR. CUMMINGS: Let's have a moment off the record.

MR. ROODMAN: Put this on the record, please. There's no reason for this to be off the record. I will object when objections are appropriate. If you ask a question that requires an objection, I will object, yes.

MR. CUMMINGS: I was trying to save some time.

MR. ROODMAN: I understand that. I cannot give you—

MR. CUMMINGS: And I think it's inappropriate

for you to tell my court reporter when to put things on the record and when not to, Mr. Roodman.

MR. ROODMAN: Well, she is here to report on this deposition. And if there's going to be colloquy that should be on the record, I have every right to ask that it be on the record.

MR. CUMMINGS: I was trying to save some time. And I think that your unwillingness to have a discussion off the record does not meet the standards of the local counsel that I have worked [77] with in this area. And it's common to have discussions off the record and your unwillingness to do that places you in an extreme minority of the counsel that I have worked with in this area since 1972.

MR. ROODMAN: Okay. We can proceed with the deposition.

Q (By Mr. Cummings) All right. Isn't it true that Exhibit 7 and Tab 3 disclose an exhaust orifice having an annular edge projecting into the plenum chamber as called for in Claim 2?

A No, it does not.

Q It doesn't have?

A It does not project into the exhaust chamber.

Q All right. Concerning Claim 3, doesn't—doesn't the prototype Exhibit 7 and Tab 3 disclose energy means for generating ultrasonic energy?

A No. There is no way to—there is nothing that shows how to generate ultrasonic energy in any of these drawings. It's just an ultrasonic transducer shown as a big block.

Q You contest whether element 35 is a transducer in Tab 3?

[78] MR. ROODMAN: Objection. Mischaracterization of the witness' testimony.

Q (By Mr. Cummings: What is element 35 in Tab 3, Mr. Lawson?

MR. ROODMAN: You are asking him to read what element 35 says on this particular drawing, counsel?

MR. CUMMINGS: Element 35.

THE WITNESS: It's—emitting surface is what you have got on this drawing.

Q (By Mr. Cummings) What is 33?

A 33 is ultrasonic transducers.

Q Thank you. So it does show an ultra—it does show energy means for generating ultrasonic energy, doesn't it?

MR. ROODMAN: Asked and answered.

Q (By Mr. Cummings) Doesn't a—doesn't a transducer generate ultrasonic energy?

A Yes. You have to excite it, but yes, a transducer would be there for generating ultrasonic energy.

Q Concerning Claim 4, don't Tab 3 and Plaintiffs' Exhibit 7 disclose energy means including a substantialer (sic.) planar emitting surface for emitting ultrasonic energy, which would [79] be 35?

MR. ROODMAN: I'm just going to object. The witness has already indicated that this drawing doesn't show an energy means. He's admitted that it shows a transducer.

MR. CUMMINGS: Mr. Roodman, I think that you need to take a look at Item 35 and see where it's located, because your objection is frivolous.

MR. ROODMAN: My objection is not frivolous. I've looked at the drawings. I appreciate you directing me to where you are trying to—

Q (By Mr. Cummings) Mr. Lawson, do you see on Tab 3 element 35 in two places? Isn't it true that the labeling statement emitting surface is present on Tab 3?

A Yes.

Q And isn't it—do you see where element 33 is a lead line that extends to the front face of the transducer?

A Yes.

Q Thank you. Isn't—returning to Claim 4. Isn't the emitting surface approximately circular having a diameter and doesn't it face the [80] exhaust orifice; isn't that true?

A Every ultrasonic nozzle in the universe has these things to it. So there's no—

Q Yes or no, Mr. Lawson?

A Yes.

Q Doesn't it further disclose a plenum chamber which contains a forming space for the formation of ultrasonic waves?

A Again, every ultrasonic nozzle in the world has that.

Q So your answer is yes?

A Yes.

Q Isn't the forming space cylindrical? Isn't the forming space cylindrical?

A Yes.

Q And doesn't it have a diameter no less than the diameter of the emitting surface?

A Yes.

Q Doesn't the space extend longitudinally from the emitting surface to the exhaust orifice?

A Yes.

Q All right. And isn't—and isn't this space substantially unobstructed by structure?

A Again, every one of these claims is [81] on every ultrasonic nozzle out there.

Q Whereby ultrasonic waves can form in the forming space without interference by structure; isn't that true?

A Again, there has to be a clear water path in every ultrasonic nozzle. That was provided by us.

Q Your answer is yes?

A Yes.

Q Regarding Claim 5, Mr. Lawson, let's try to short circuit this. Looking at the last three lines of Claim 5, you see those?

A Uh-huh.

Q Said—end of said plenum chamber includes outer surface means for reflecting ultrasonic waves towards the wall, you see that?

A Uh-huh.

Q Isn't that what you invented?

A That is—that is part of our invention.

Q Concerning Claim 6, doesn't—fluid communication between the passageway and the exhaust orifice is provided solely through the wall. Isn't that true in both your embodiment and in the—and in Tab 3?

[82] A Tab 3 does not have any walls in it. It is not the same.

Q What's 11 in Tab 3? Well, it says nozzle. I'm going to try to see if there's a—do you not see a cylindrical wall in Tab 3?

A No.

Q That houses the—that is external to the porous material? Don't you see a cylindrical wall?

MR. ROODMAN: Vague and ambiguous.

THE WITNESS; There is no cylindrical wall between the outer chamber and the inner chamber.

Q (By Mr. Cummings) That's not what—that's not what Claim 6 requires. It says that fluid communication is provided between the passageway and the exhaust orifice.

MR. ROODMAN: I'm going to object to the extent that you're going to ask the witness what a claim requires. If you want to ask him about specific elements, whether or not he believes, in his opinion, that they are

present in a structure, that's fine. But to the extent that you're going to ask him for legal conclusions, I'm going to object.

[83] Q (By Mr. Cummings) Concerning Claim 9—no, strike that. Strike that. I direct your attention now to Claim 16, Mr. Lawson. That talks about Claim 1 and we already discussed Claim 1 and you agreed that all the elements of Claim 1 were found in Tab 3 and in Exhibit 7.

MR. ROODMAN: I'm going to object to the characterization of the witness's testimony. That's not accurate.

THE WITNESS: That is not what I said.

Q (By Mr. Cummings) Concerning Claim Number 16, Mr. Lawson, this is similar to a previous question, but since it's a separate claim, I have to ask you again. Doesn't Tab 3 and Exhibit 7, don't they both disclose energy means for generating ultrasonic energy?

A Again, yes, but every ultrasonic nozzle has that.

MR. CUMMINGS: Move to strike the portion beginning "every."

Q (By Mr. Cummings) Number 17, Mr. Lawson, does not Tab 3 in Exhibit 7 disclose energy means including a substantially planar emitting surface for emitting ultrasonic energy?

[84] A That defines an ultrasonic transducer which are commercially available. I mean, I-you are beating a dead bush here. What's—

MR. CUMMINGS: Move to strike everything. Most of it's nonresponsive except yes.

THE WITNESS: I did not say yes.

Q (By Mr. Cummings) Well, does it or does it not? Yes or no? Does not Tab 3 in Exhibit 7 disclose an emitting surface for emitting ultrasonic energy?

A Yes.

Q Doesn't it further—isn't that emitting surface, isn't it circular? Isn't is circular?

A Yes, as every other ultrasonic transducer is.

MR. CUMMINGS: Move to strike "as every other ultrasonic device is."

Q (By Mr. Cummings) And doesn't it face the exhaust orifice?

A Like every other transducer face, yes.

MR. CUMMINGS: I want to have a continuing objection to each one of his [85] characterizations which go beyond a yes or no answer. I would like to save some time. Is that acceptable to you, Mr. Roodman?

MR. ROODMAN: You can object all you like. But the witness, if the answer is not yes or no, he's entitled to answer the question fully. I'm not going to restrict his answer.

Q (By Mr. Cummings) Okay. We'll just keep going. Doesn't the plenum chamber contain a forming space for the formation of ultrasonic waves?

A Like every other ultrasonic nozzle, yes.

MR. CUMMINGS: Again, I move to strike beginning with "every other."

MR. ROODMAN: You can have a standing objection.

MR. CUMMINGS: I want to have a standing objection. Having to go object each time he says that is a waste of everyone's time.

MR. ROODMAN: I'm not telling you need to object each time. You can have a standing objection.

MR. CUMMINGS: That's what I want. I understood you previously to not be willing to [86] grant that, but apparently you have clarified that and let's proceed.

Q (By Mr. Cummings) Isn't the forming space cylindrical?

A Yes.

Q Doesn't it have a diameter no less than the diameter of the emitting surface?

A Yes.

Q Doesn't it extend longitudinally from the emitting surface to the exhaust orifice?

A Can I add my response, "like every other ultrasonic transducer," to every one of my answers?

Q Continuing objection covers that. Isn't it substantially unobstructed by structure whereby the ultrasonic waves can form in said forming space without interference with the structure?

A Like every other ultrasonic transducer nozzle, yes.

MR. CUMMINGS: Continuing objection.

Q (By Mr. Cummings) Number 18, isn't the fluid communication between the passageway and the orifice provided solely through the wall in—I want to—before you answer, Mr. Lawson, I want [87] to direct your attention to Tab 3, the entry 21 and the port 19.

MR. ROODMAN: I'm sorry. Could you repeat that?

Q (By Mr. Rodman:) Concerning Claim 18, doesn't the fluid communication between the passageway and the exhaust orifice provide solely through the wall the fluid in—isn't it true that in Tab 3, the fluid flows radially through the wall and then goes to the orifice through the porous material just as yours does?

A There is no—there is no wall as described in this patent in Tab 3.

Q Mr. Lawson, do you see the—

A So the answer was no, sir.

Q —entry conduit, 21?

MR. ROODMAN: Counsel, you already directed him to that. He's answered your question.

THE WITNESS: 21.

Q (By Mr. Cummings) Do you see the radial conduit, 19?

A 19, yes.

Q Does not the fluid leaving conduit, 19, flow to the exhaust orifice through the porous material, 15?

[88] A Yes, it flows through the porous material.

Q Just as in the same manner that the porous material—that the water in your patent that's at least now containing your name and not Mr. Deichmann's—in fact, the numbers are the same. Enters at 19, flows along at 21, and goes to the porous material 15. Isn't the flow substantially the same?

MR. ROODMAN: Objection.

THE WITNESS: The flow is completely different.

MR. ROODMAN: Asked and answered.

THE WITNESS: Completely different.

(Whereupon, at this point in the proceedings, an off-the-record discussion was held.)

Q (By Mr. Cummings) I think that—Mr. Roodman, would you be willing to stipulate that Claim 22 is substantially the same as 17 so I don't have to go through all this again?

MR. ROODMAN: I'm not going to stipulate that it's the same. The claim speaks for itself. I'm not going to make that type of—if you—if you are comfortable with the answers that

* * *

APPENDIX LL

REFERENCE TO LODGING

Appendix LL, Technical Paper, "Bifurcation of Round Air Jets by Dual-Mode Acoustic Excitation" (7 pages), is filed separately with this Appendix as Lodging VIII.

APPENDIX MM

REFERENCE TO LODGING

Appendix MM, U.S. Patent No. 4,795,092 (10 pages), is filed separately with this Appendix as Lodging IX.

APPENDIX NN

REFERENCE TO LODGING

Appendix NN, U.S. Patent No. 5,160,086 (7 pages), is filed separately with this Appendix as Lodging X.

APPENDIX OO

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May 25, 2000

Via Facsimile & Mail

Henry W. Cummings, Esq.
3313 W. Adams Street
St. Charles, MO 63301

Re: *Usher's Waterworks, Incorporated v. The Boeing Company*

Dear Henry:

Pursuant to your request, this will confirm our agreement regarding your proposal use of Item Nos. 3-6, 14-15, 17, 21-23, 25-36, 38-41, 45, 48-49, 52-53, 55-57, and 60, as identified in the index to the "Joint Appendix" of the appeal to the United States Court of Appeals for the Federal Circuit of the above-referenced case. Our client, The Boeing Company ("Boeing"), consents to your inclusion and use of the exhibits and/or documents corresponding to the above-referenced item numbers solely for the purpose of your proposed Petition to the United States Supreme Court. You have agreed, on behalf of yourself and your clients including, but not limited, to, Ronald S. Deichmann and Usher's Waterworks, Inc., that such materials would only be used for the purpose of the subject appeal and for no other purpose whatsoever. Based upon said understanding and

agreement, Boeing has agreed to waive the requirement that such materials be filed under seal.

Should you have any questions or comments regarding this matter, please do not hesitate to contact us.

Very truly yours,

/s/ David A. Roodman
David A. Roodman

DAR/tp
cc: The Boeing Company